COMBINED-REPORTING STUDY

Office of Fiscal and Management Analysis
Indiana Legislative Services Agency
October 1, 2016

A Study of Practices Relating to and the Potential Impact of Combined Reporting

Executive Summary

Corporate tax revenue in Indiana accounts for about 5% of the General Fund revenues. Corporate tax rates are being phased down from 8.5% in Fiscal Year 2012 to 4.9% in in Fiscal Year 2022. Even though the Indiana corporate tax base experienced growth during the past five years, historically it has failed to keep up with the growth in U.S. corporate profits and federal corporate tax base.

The primary reasons for this base erosion have been the secular shift in business organization from C corporation status to pass-through entity status and the impact of other tax planning strategies by multistate corporations. To reduce the impact of tax planning on state revenues, states have adopted statutes requiring addbacks and disallowing tax benefits that occur from related-party transactions.

Indiana has selectively targeted the tax avoidance strategies by implementing an addback of related company expenses. The Indiana Department of State Revenue has also used general statutory authority under IC 6-3-2-2 to make related-party adjustments to a taxpayer's income tax filing. Several states have adopted or considered adopting mandatory combined reporting. SEA 323-2016 requires the Legislative Services Agency to study the combined-reporting approach to apportioning income for income tax purposes.

While combined reporting neutralizes several tax planning strategies like the use of intellectual property holding companies, transfer pricing, captive real estate investment trusts, captive insurance subsidiaries, and overseas management affiliates, it could also create different complexities in the determination of the unitary group, creative manipulation of sales-factor apportionment, and additional administrative burdens during the transition. Based on experiences from other states, it is not clear whether combined reporting leads to additional long-term administrative costs related to audit workload and litigation. However, a transition to combined reporting would require substantial resource commitment during the change. Some states have provided additional resources to their revenue departments to implement combined reporting.

Anecdotal evidence suggests that the impact of combined reporting on state revenues has been mixed. Fiscal analysts in other states have mostly estimated a positive fiscal impact from combined reporting. A hypothetical computation in the report demonstrates that combining the income and apportionment factors could increase liability for one taxpayer while it could decrease the tax liability for another taxpayer. An analysis of the imputed state tax base shows that when measured as a share of Gross State Product, the imputed corporate tax base is generally larger in combined-reporting states. However, when studied separately, some combined-reporting states show the corporate tax base share being smaller than the average tax base in separate-reporting states.

Maryland and Rhode Island have statutorily required corporate taxpayers to file pro forma combined returns. Pro forma combined returns when compared to separate returns shows an increase in revenue in some years and a decrease in revenue in other years. These returns demonstrated that a majority of taxpayers did not have any tax impact from the change in the reporting method from separate to combined reporting. These analyses did not include consideration for any counter tax planning strategy if combined reporting is actually implemented in a state.

In reviewing the literature we found that most researchers agree that the separate-reporting method provides state corporate taxpayers with the opportunity to create favorable business structures and intercompany transactions that shift income from affiliates based in high-tax states to affiliates based in low-tax or no-tax states. Proponents of combined reporting suggest that methods other than combined reporting may not be sufficient to address the loss of state tax revenues from such tax planning. Researchers have conflicting viewpoints on whether combined reporting will generate more revenue for the state.

We used econometric techniques to examine how state tax policies, including combined reporting, influence state corporate income tax revenue. This method controls for variation in the tax base related to the economic cycle and other tax policies, and separates the impact from combined reporting. The econometric results suggest that combined reporting may have an initial positive impact on corporate income tax revenue but that this impact is not lasting. We estimate that the initial positive impact could potentially be economically significant. However, we also estimate that this impact will only be short term and will decline to zero in the long run.

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Combined Reporting and Related Issues

SEA 323-2016 requires the Legislative Services Agency to study the combined reporting approach to apportioning income for income tax purposes. Specifically, SEA 323-2016 requires the study to:

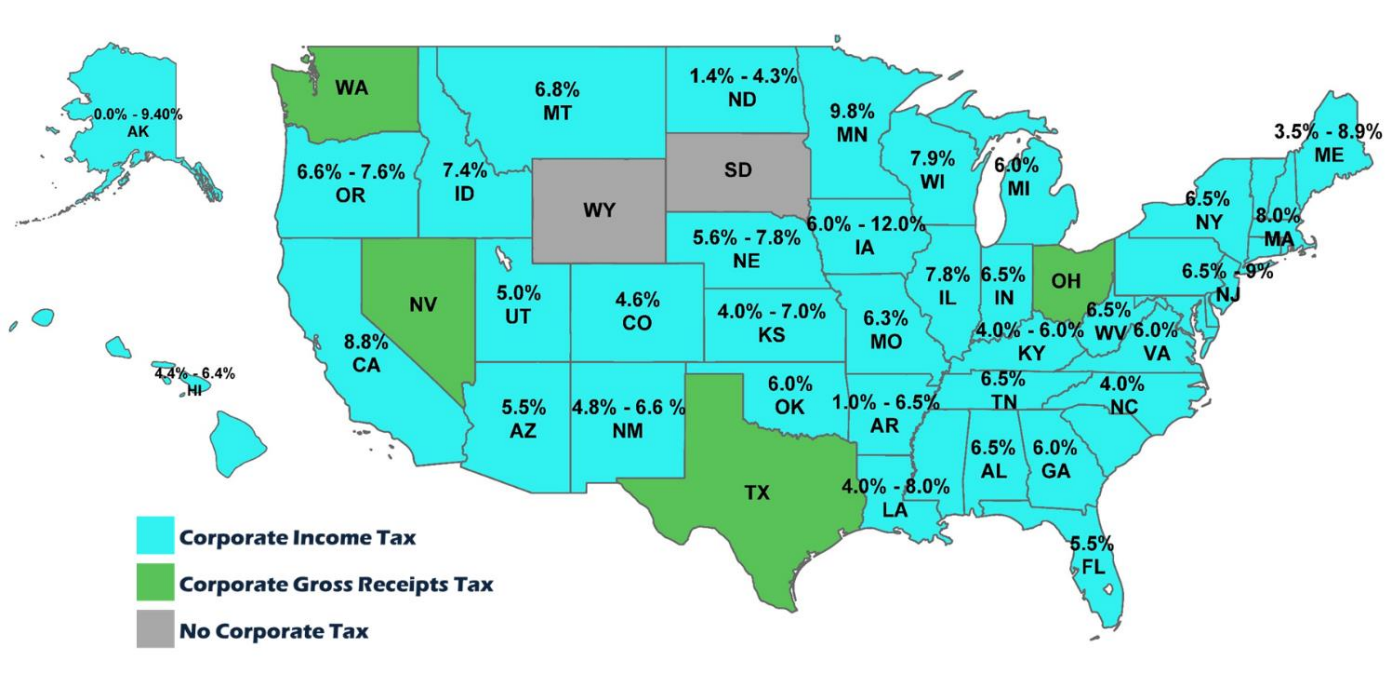
- Review the practices in other states regarding combined reporting.
- Review the administrative costs of implementing combined reporting, including information on the administrative costs incurred by other states that have implemented combined reporting.
- Review studies and reports that have been prepared on the issue of combined reporting.
- Estimate the fiscal impact of implementing combined reporting in Indiana.

I. Current State of Corporate Tax

A business can be set up in several ways, including a sole proprietorship, a general partnership, a limited liability company, a limited liability partnership, or a corporation. Corporations can be subdivided into those on which a corporate tax is imposed (C corporations) and those electing to be taxed through their shareholders at individual income tax rates. The latter group includes Subchapter S corporations (S corporations), regulated investment companies (RICs), and real estate investment trusts (REITs). These entities are not taxed at the corporate level; instead their income flows through to their owners and is taxed as personal income.

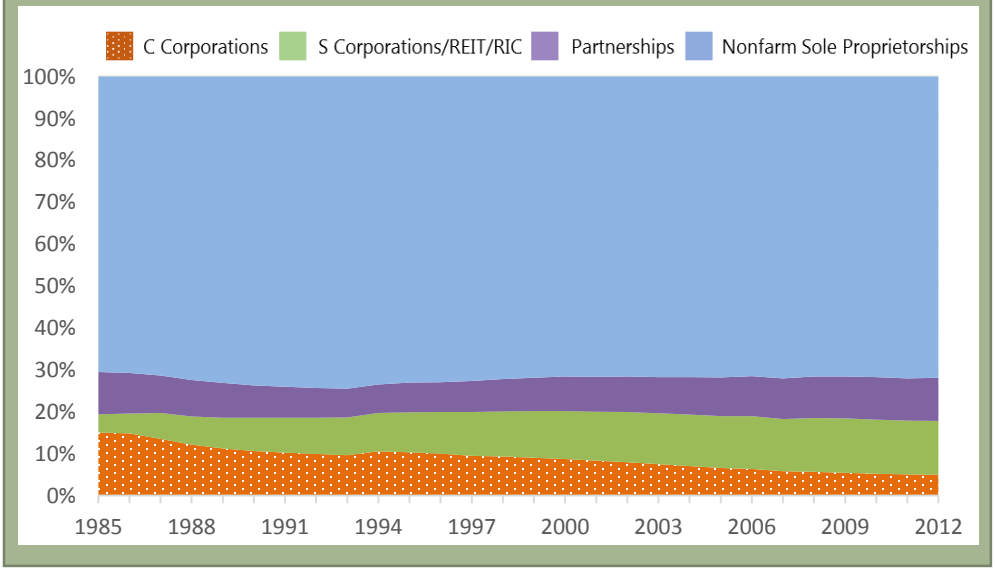
A C corporation is a business that is generally owned by a group of shareholders who purchase stock in the company. It is a legal entity that is separate from the owners for tax purposes. Corporate tax is imposed on C corporations at the federal level, by 48 states, and by some local governments. Figure 1 displays the variation in corporate taxes and tax rates among the states. Currently, 44 states impose a corporate income tax and 4 states impose a corporate gross receipts tax.

Figure 1. Range of Corporate Income Tax Rates (January 1, 2016)



Business Income and Taxation in the United States

Figure 2. Share of Total U.S. Business-by-Business Structure (IRS), 1985-2012

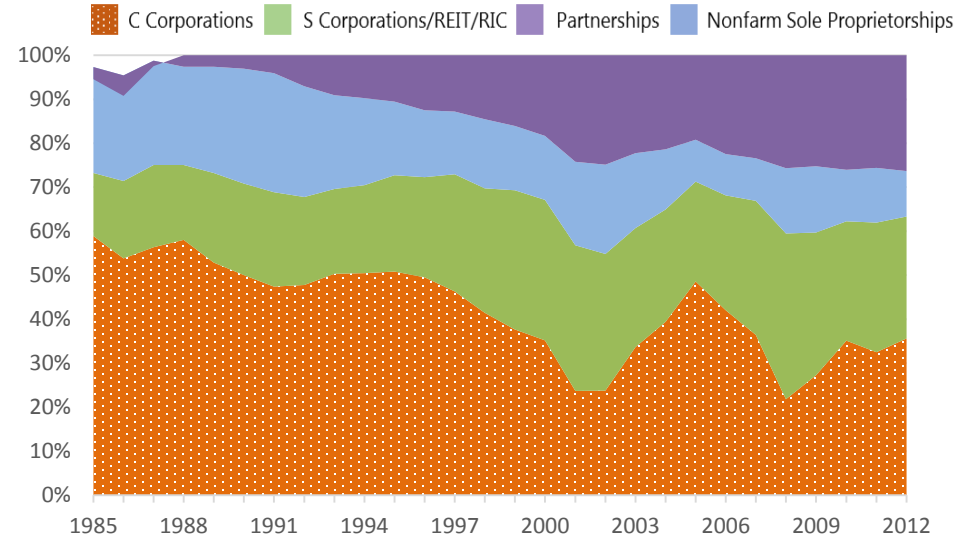


The corporate tax base at the state level has generally been eroding for at least 20 years. The primary reasons for this base erosion has been the secular shift in business organization from C corporation status to pass-through entity status (e.g., S corporations, partnerships, and limited liability companies) with the former being subject to corporate income tax and the latter being taxed via shareholders or partners through the personal income tax. The other reason for the corporate tax base erosion is the impact of tax planning by multistate corporations.

The number of business entities in the United States has almost doubled to about 32 million in 2012 as compared to about 16 million in 1985. The growth in partnerships and sole proprietorships has occurred in the same proportion, nearly doubling since 1985. Growth in the number of corporations has been 90% during the same time period. (IRS, SOI Files)

The important trend for purposes of this study lies within the corporate structure where corporations can be subdivided into those on which a corporate tax is imposed (C corporations) and those electing to be taxed through their shareholders at individual income tax rates (S corporations, RICs, and REITs). Nationally, in 1985 there were 2.5 million C corporations and about 725,000 other corporations. In 2012 there were 1.6 million C corporations and about 4.2 million other corporations. In other words, the ratio of C corporations to S corporations was 3 to 1 in1985, and by 2012 the ratio had nearly reversed to 1 to 2.6. (IRS, SOI Files) This shift is displayed in Figure 2.

Figure 3. Share of Net Income (Less Deficit) by Business Structure (IRS), 1985-2012



Although C corporations still dominate the income generated by all businesses, the share attributable to C corporations has declined over the years. C corporations accounted for almost 60% of all business income in 1985, but declined to about 35% in the last decade. Figure 3 below illustrates that starting in the mid-1990s, the increase in the number of pass-through entities, particularly limited liability companies and S corporations, had significant impacts on corporate tax revenue. (IRS, SOI Files)

The trend in business structure in Indiana has been similar to the national trend. Table 1 reports how a portion of business activity in Indiana has moved away from C corporation status to those pass-through entities whose profits are taxed at the individual level.

Table 1. Indiana Business Tax Filing Statistics, 2003 and 2013

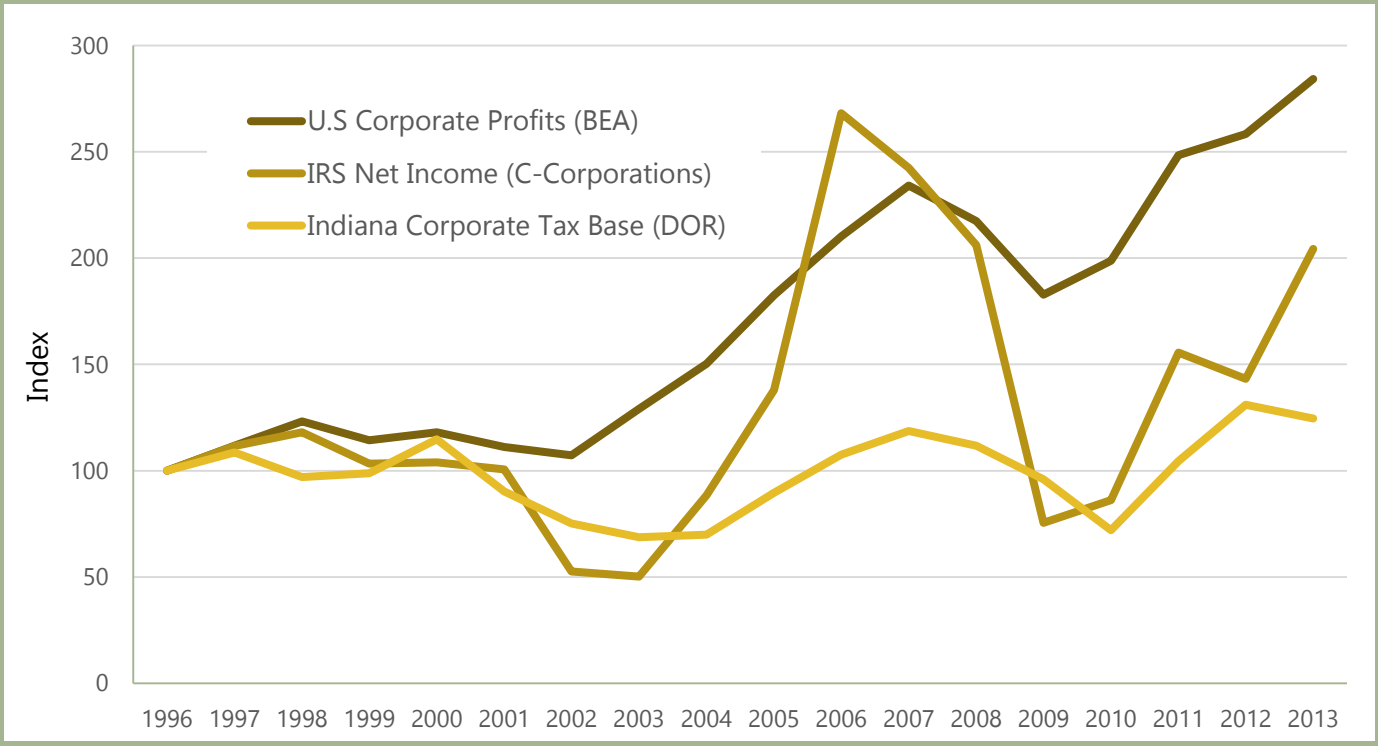
Tax Filer	2003	2013	Growth
C-Corporation	$39,408	$36,822	-6.6%
S-Corporation	90,916	96,866	6.5%
Partnership	46,092	68,588	48.8%
Total	**$176,416**	**$202,276**	**14.7%**

Source: DOR Corporate Tax Database

Although the shift away from C corporation status could be responsible for some decay in state corporate tax base, this shift cannot account for all of the divergence of state corporate tax base from U.S. corporate profits. With the exception of Mississippi and Arkansas, all states use a corporation's federal taxable income as the starting point in the calculation of that corporation's state taxable income. Consequently, a relative decline in federal tax base would

have a direct impact on state corporate taxable income. Still, research by Gupta (2009) suggests that there is a significant loss of state tax base due to tax planning by multistate corporations. If the decline in the state corporate tax base relative to U.S. corporate profits is more severe than the relative decline in the federal tax base, this could potentially be the result of tax planning at the state level by multistate corporations. Figure 4 suggests that this is the case. The growth in the federal corporate tax base and Indiana corporate tax base has failed to keep up with the trend in U.S. corporate profits. More importantly, the growth in the state corporate tax base deviates much more from the trend in U.S. corporate profits than does the federal corporate tax base.

Figure 4. U.S. Corporate Profits (BEA), IRS Net Income (C corporation), Indiana Corporate Tax Base (DOR), 1996-2013



One-year lagged CY US corporate profits and IRS Net Income (C-Corporation) figures have been used to account for the lag in state revenue impact.
(BEA: Bureau of Economic Analysis, IRS: Internal Revenue Services, DOR: Indiana Department of Revenue)

Corporate Tax Planning Strategies

Given the potential impact of tax planning on the corporate tax base, it is important to consider the impetus for tax planning and how it is carried out. This section provides a brief overview of tax planning, the setting in which tax planning occurs, the purposes of tax planning, and the policies that states implement to stem the impacts of these practices.

For purposes of the state corporate tax, federal constitutional requirements under the Commerce Clause and Due Process Clause require some minimum nexus and a fair apportionment of a multistate corporation's income. Given the varied factors determining the corporate tax base in each state, the United States Supreme Court has

permitted the states to determine a corporation's tax base attributable to a state by the use of formulary apportionment. This has led to significant differences in state corporate tax laws. The United States Supreme Court has emphasized that the task of uniformity lies with the state legislatures and United States Congress. *(Container Corp. of America v. Franchise Tax Board)*

Another legislative matter of significance in this regard is Public Law 86-272, enacted in 1959. Under Public Law 86-272, a state cannot impose a tax on the income derived within the state by an out-of-state corporation engaged exclusively in interstate commerce if (1) the corporation's activities within the state are limited to the solicitation of orders for sales of tangible personal property, (2) the orders are processed outside the state, and (3) the orders are filled and delivered from outside the state. (15 U.S.C. § 381(a))

In addition two compacts have been adopted with the intent of achieving uniformity in state tax laws. The Uniform Division of Income for Tax Purposes Act (UDITPA) was adopted by the Commissioners on Uniform State Laws and the American Bar Association in 1957. The Multistate Tax Compact (MTC) was drafted in 1966 by a group of state officials and became effective in 1967. UDITPA was incorporated into the Multistate Tax Compact. Notwithstanding the adoption of these compacts, there are still divergent rates, methods of sourcing of income, and apportionment methods, and variation in implementing policies like the throwback rule in the states. The lack of uniformity is due to a general policy disagreement and competitiveness among states. (Ortiz, 2014)

In the absence of uniformity in state tax laws, one common tax planning technique has involved creating "nowhere income" using Public Law 86-272. If a state's apportionment formula would result in some part of a taxpayer's income being apportioned to another state that does not or cannot impose an income tax on the taxpayer, then that portion of the taxpayer's income would be untaxed (hence the term "nowhere income"). However, some states have adopted a 'throwback rule' that adjusts the apportionment to include all or a portion of the nowhere income into the state's tax base. A taxpayer could set up a shipping subsidiary in a state without a throwback rule in order to take advantage of "nowhere income". The tax planners could also allocate nonbusiness income to low-tax or no-tax states. The effectiveness of these strategies has been reduced by state revenue agencies tightening their interpretation of the term "solicitation".

In the 1990s and 2000s, some taxpayers moved to isolating intangibles in entities registered in a "tax haven" jurisdiction. Delaware holding companies received substantial income shifted from entities in separate-reporting states. Other similar strategies included transferring interest and management fees to a combined-reporting state or no-tax state. These tax planning methods gained ground when large accounting firms began designing structures known as the "east-west split". This was put in place to take advantage of income concentration in the combined-reporting-dominated western states. These base-shifting strategies use transfer pricing, captive REITs, regulated investment companies, payroll leasing companies, and other methods. (Barnwell, 2009)

The Indiana Department of State Revenue (DOR) has fielded appeals and litigation on all of these issues with mixed results. Although the DOR has been successful in several cases, it has been unsuccessful in others, especially in recent cases involving transfer pricing issues. Transfer pricing studies need a thorough analysis requiring detailed company-level data. State revenue departments have argued that the case-by-case analysis of intercompany transactions is resource-consuming and counterproductive.

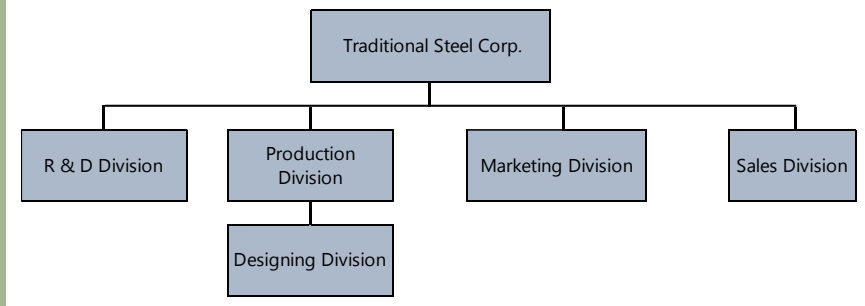
Transfer pricing examination and analysis is complex and expensive. In addition, if a transfer pricing study is not conducted in an efficient and effective manner, it could result in unwarranted penalties, interest, and double taxation if the profits are taxed in two different states. In order to overcome the complexity, state officials have received specific training on this issue, hired transfer pricing specialists, and used third-party consultants. These measures require substantial resources and budgets. To reduce the number of disputed transactions, states have adopted statutes requiring addbacks and disallowing tax benefits that occur from related-party transactions. Several states have adopted or considered adopting mandatory combined reporting. A discussion of the scope and issues related to transfer pricing is provided in a separate report.

In order to stem the revenue impact of such income-shifting strategies, states have done the following: (1) enacted provisions requiring addbacks of related-entity deductions, (2) been more aggressive in asserting nexus, and (3) aggressively audited transfer pricing. Some states have also adopted a gross receipts tax, which has the related-entity issues to a lesser extent. Indiana and 21 other states adopted addback statutes requiring operating companies to add back intercompany expenses, primarily related to interest and intangibles that are paid to related companies. However, separate-reporting states continued to experience different manifestations of related-entity base-shifting strategies. These revenue-shifting strategies are, in part, what led to the second wave of combined-reporting requirements which arrived in the mid-2000s.

II. Corporate Income Tax Reporting Methods

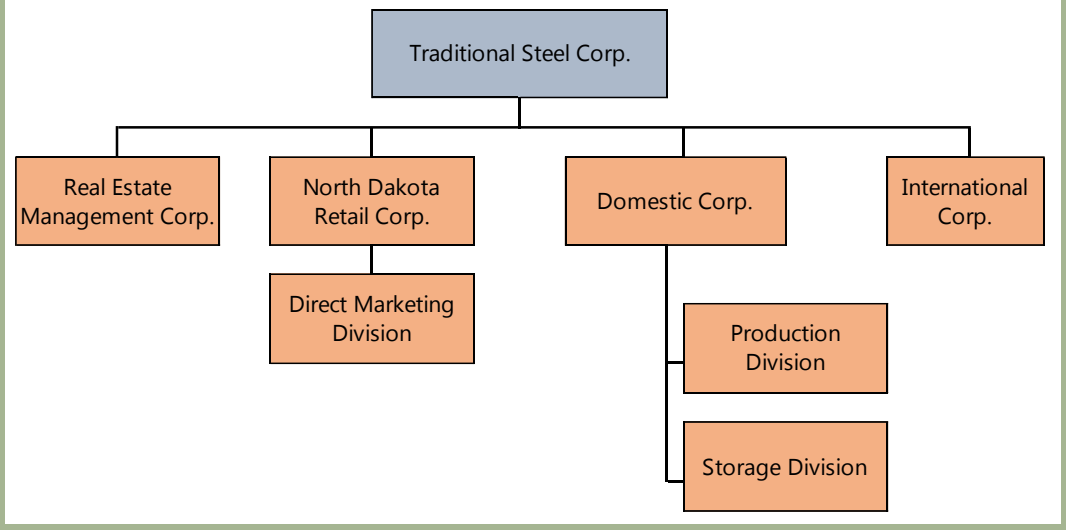
One of the most difficult and controversial issues in state taxation is determining the fair share of a corporation's income that should be allocated to a particular state for purposes of taxation. As a result, formulary apportionment and methods of reporting corporate income have become the most significant tools to stem corporate tax base erosion. In the 1910s and 1920s, the first two decades of corporate income tax, states allocated income by using separate accounting (not just separate filing). Under this method, each corporation computes its income for any given state based on its cost and receipts from that particular state. To further elaborate with an example, a toy company in Vanderburgh County, Indiana, would disregard its out-of-state branches, subsidiaries, or affiliates, and Indiana would tax only the income reflected in that specific firm's accounts. This method totally ignores the inseparable nature of profit in a multilevel, vertically integrated firm.

Figure 5. A Conventional Corporate Organization Structure



The income produced by the integration is difficult to allocate. Whereas separate accounting is adequate and relatively simple to perform for a business operating in only one state (see Figure 5 above), it is complex and provides multistate corporations (see Figure 6 below) the opportunity to misrepresent prices of intercompany transactions to understate profits in high-tax states. Overall, this system was very cumbersome and difficult to administer.

Figure 6. A Modern Multinational Corporate Organization Structure



Formulary Apportionment

Difficulty in determining the appropriate state tax base under the separate accounting method led to the advent of formulary apportionment in the 1930s, which became the preferred method of allocating income for purposes of corporate income tax. Under an apportionment method used now by many states, corporations are required to use a variation of three factors (sales, payroll, and property) to estimate the corporate income that is allocated to the respective state. Property, payroll, and sales are considered to be the income-producing factors and thus the statistical indicators of a corporation's income. The ratio of a taxpayer's in-state factors to the taxpayer's total U.S. factors is the basis of apportionment. Currently, 20 states, including Indiana, use only the sales factor in the formula.

Formulary apportionment can be applied to a separate entity, a consolidated entity, or a unitary entity of a centrally controlled group of corporations. Combined reporting is a type of formulary apportionment method that refers to a unitary entity filing. It is the most comprehensive method to shore up the weaknesses of a separate-reporting regime where tax planning strategies lead to corporate tax base erosion despite formulary apportionment.

There are generally three major alternatives available to states with regards to setting the policy under formulary-apportioned corporate tax reporting. The alternatives include separate reporting, consolidated reporting, and combined reporting. States set a requirement for one type of filing, and an election and petition process is often available to file using an alternate reporting method.

Separate Reporting

Separate reporting requires that each corporation must file a separate return, regardless of whether it is part of an affiliated or consolidated group. Separate filers report federal income, deductions, apportionment, and tax liability at the separate-entity level. This reporting method is based on a premise that a corporation's taxable

income in a state could be isolated even if it is reported separately from the rest of the group. It assumes that intercompany transactions between affiliates will be determined at an arm's length sales price or appropriate transfer price.

A number of states allow or require separate reporting.[1] Separate reporting is viewed as having advantages and disadvantages for a taxpayer. Separate filers with multistate operations can organize their business structure in order to take advantage of the entity and asset isolation and pricing strategies discussed later in this report. They can use tax planning measures to set up easily transferable high-profit margin activities in low-tax or no-tax states and their low-profit margin activities in states with higher tax rates. From a taxpayer's point of view, a major drawback of separate filing is that a corporation is unable to offset income from profitable affiliates with losses at other related affiliates.

Table 2. Illustration of Corporate Tax Reporting Methods

	Entities			Reporting Type		
Taxpayer Attributes	**Parent**	**Subsidiary 1**	**Subsidiary 2**	**Separate**	**Consolidated**	**Combined**
Indiana Nexus	Yes	Yes	No			
Total U.S Income	$10,000	$1,500	$2,000		$11,500	$13,500
Indiana Sales	5,000	2,000	0		7,000	7,000
U.S. Sales	50,000	6,000	5,000		56,000	61,000
SSF Apportionment	10.0%	33.3%	0.0%		12.5%	11.5%
Indiana Apportioned Income	**$1,000**	**$500**	**$0**	**$1,500**	**$1,438**	**$1,549**

Note: SSF represents Single Sales Factor apportionment method currently used by Indiana

Consolidated Reporting

Some states requiring separate filing also permit a taxpayer to elect to file on a consolidated basis. A consolidated return is not a combined return, which means that all affiliated groups of a C corporation that have income or loss attributable to the state, file a single consolidated income tax return in the state. The state taxable income of all entities under a consolidated return is computed using a consolidated factors of corporations included in the return. A consolidated return requires a common parent, and most states require the same stock ownership requirements (80%) as that of the federal consolidated rules.

Indiana, Mississippi and Tennessee, are some examples of separate-reporting states that allow a taxpayer to elect to file on a consolidated basis. Some states also require a consolidated filing by certain corporations to fairly reflect the taxpayer's state taxable income. Several states, including Indiana, also require a company to have nexus in order to be part of a consolidated group. An affiliate that is part of a typical unitary entity that is engaged in a common integrated operation with an Indiana parent company but does not have a separate source of income in Indiana would not be included in a consolidated filing.

[1] Those states requiring separate filing include Alabama, Arkansas, Delaware, Florida, Georgia, Indiana, Iowa, Kentucky, Louisiana, Maryland, Mississippi, Missouri, New Jersey, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Tennessee and Virginia.

Combined Reporting[2]

A combined return is an income tax return filed for the unitary group of an affiliated group of corporations. Conceptually, a unitary group is composed of those related companies whose business activities are interdependent, interrelated, and integrated through their activities so as to provide a synergy and mutual benefit. The includable corporation must have to meet a test of unity. Most states require the test of unity to be met over several years. Federal constitutional requirements prohibit any entity from being included in the taxpayer's apportionment calculation unless that entity meets one of the various unitary tests.[3] The DOR may allow or require a corporation to file a combined report.

A business may be conducted through various divisions of a single corporation or through several affiliated entities as a commonly controlled corporation. Generally, if several divisions or separate corporations are interdependent or working towards a mutual benefit and they are part of one integral business, then they are considered a unitary group. States have mostly used United States Supreme Court precedents to define the unitary test in their statutes. States must also decide on many other components and policies related to the computation under combined reporting.

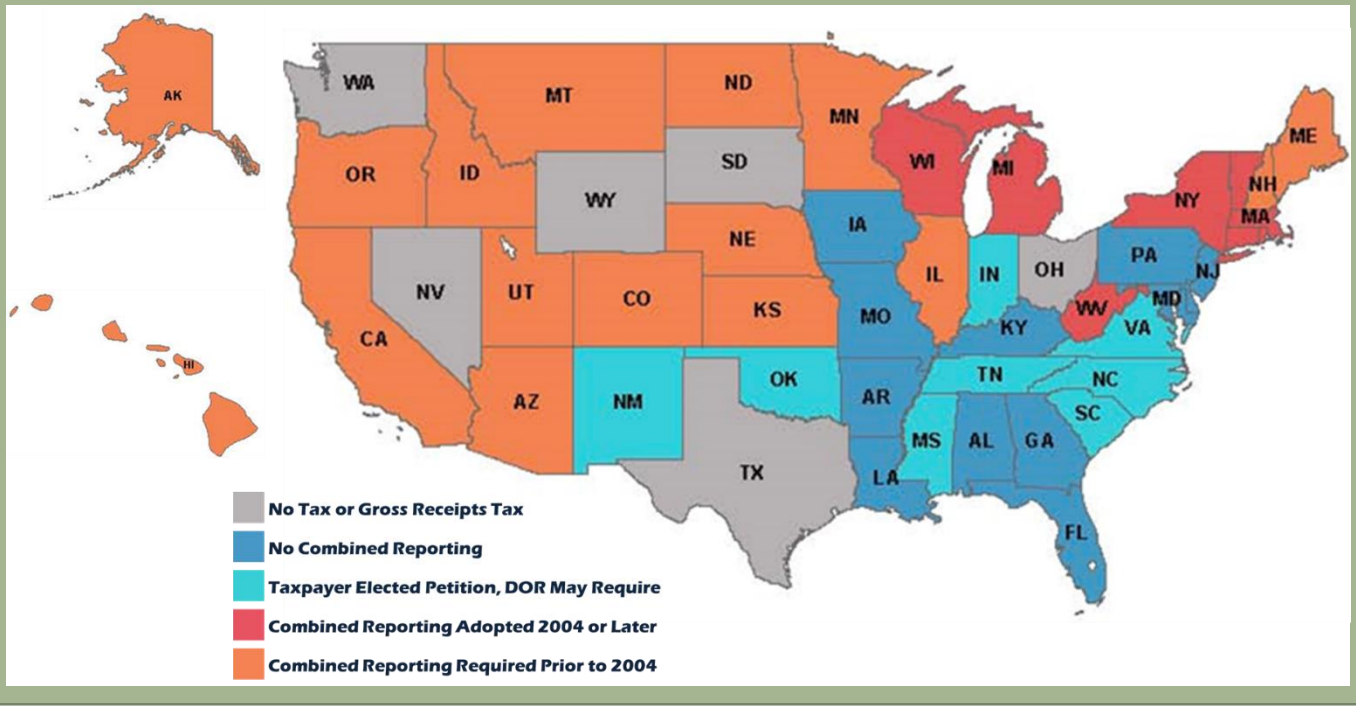
[2] States requiring combined or "unitary" reporting include Alaska, Arizona, California, Colorado, Connecticut, Hawaii, Idaho, Illinois, Kansas, Maine, Massachusetts, Michigan, Minnesota, Montana, Nebraska, New Hampshire, New York, North Dakota, Oregon, Rhode Island, Utah, Vermont, Wisconsin and West Virginia. Texas, which has a gross receipt tax, also uses a form of combined reporting.

[3] See generally, Container Corp. of America v. California Franch. Tax Bd., 463 U.S. 159 (1983); Allied Signal Corp. v. New Jersey Dir., Div. of Taxn., 504 U.S. 768 (1992).

III. History and Issues of Combined Reporting

Combined reporting began in California in the 1930s. Figure 7 displays the variation in combined reporting across the states. Currently 24 states require combined reporting. Eight of these states have adopted combined reporting since 2004.

Figure 7. Combined Reporting Status in States, as of January 1, 2016



Huddleston and Sicilian (2014) trace the concept of unitary business to the 1800s. They point to the challenges faced by governments in determining the property tax share of multistate railroad companies operating in their jurisdiction. This concept hinged on the argument that the value of the whole property was greater than the value of its parts. In *In Re State Railroad Tax Cases,* 92 U.S. 575 (1875) the United States Supreme Court determined that *"the track of the road is but one track from one end of it to the other, and except in its use as one track is of little value."* With the advent of multistate corporations and state corporate taxes in the 1900s, allocation of income to states became a contentious subject. In *Bass, Ratcliff and Gretton v. State Tax Commission,* 266 U.S. 271 (1924), the United States Supreme Court sided with the state and found that a portion of the income earned by a multinational corporation from the conduct of its unitary business could be attributed partly within and partly outside the state. Thus, the concept of unitary business and formulary apportionment found a legal precedent in its application to state income taxes.

In the 1930s California faced an income allocation problem with respect to income earned by its movie industry. Movies, which were the source of all income to that industry, were being produced in California, but then sold to out-of-state affiliates for nationwide distribution. This resulted in very little in-state income for the movie industry. Based on the unitary business concept, California required those businesses to apportion their income using combined reporting. The rules required that the apportionment factor numerator consist of the taxpayer's

California factor, and the denominator consist of factors of all business. That apportionment share was then applied to the income of all of the unitary business. Later, a California court upheld the state's approach to combined reporting.

In the 1950s and 1960s other states considered the adoption of formulary apportionment and the desirability of uniform laws. That was followed by a period of litigation concerning the trigger point for requiring combined reporting. By the end of the 1980s several states had adopted combined reporting as an alternative or as a requirement. Since 2004 at least 8 states have joined the states that had previously adopted combined reporting. Today 24 states require combined reporting. It has been proposed recently in several other states including Indiana, North Carolina, New Jersey, Iowa, Maryland and Pennsylvania.

States that have implemented combined reporting had to decide on three major policy or administrative questions: (1) how to determine which affiliates would be considered organically part of a unitary group; (2) how to determine the unitary group's taxable income; and (3) how to calculate the state share of the unitary group's taxable income.

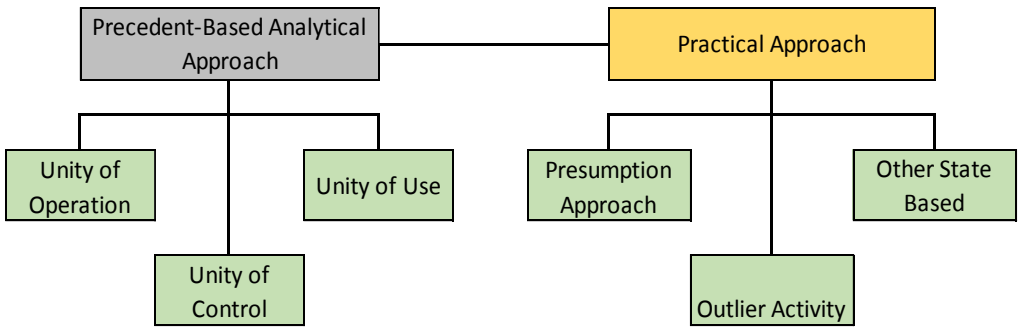
Determination of a Unitary Group

Maybe the most important aspect of combined reporting, because of its complexity and potential administrative impact, is the unitary group determination. United States Supreme Court precedent and MTC guidelines based on case history have been used by the adopting states to design unitary test statutes. These guidelines suggest the use of one of several unity tests. The test is a combination of the following factors:

(1) Unity of ownership, which generally requires direct or indirect control of over 50% voting stock.
(2) Unity of operations in management, accounting, or sales.
(3) Unity of use as evidenced by the presence of a central executive authority which performs important line functions for each member of the group.
(4) A contribution and dependency test to determine whether the in-state affiliate is an integral part of profit generation of an out-of-state entity.
(5) Factors of profitability, functional integration, centralized management, and economies of scale.

Figure 8 highlights the unitary group determination methods using these factors.

Figure 8. Unitary Group Determination Methods



Source: Based on Wisconsin Department of Revenue Model

As a practice, entities constituting a unitary group should have some specific characteristics. One sign of a unitary group could be intercompany transactions that are not at arm's length. There are several economic reasons to conduct such transactions. Shared activities in budget creation and approval, research and development, purchasing, loan guarantees, insurance, marketing, and computer servers could be trademark features of an entity and its unitary group connection. Determination of which entities actually meet those tests of unity could be complicated and contentious.

> *"Under Arizona's combined reporting rules, the basic operations of each member of a combined group must be analyzed to determine whether each entity is operationally integrated. The analysis generally comes down to whether an entity performs an accessory function or a function that is operationally interdependent with other members at the revenue producing level."*
> (Dickerson; Howard; 2011)

The MTC definition for unitary business is: "*a single economic enterprise that is made up either of separate parts of a single business entity or of a commonly controlled group of business entities that are sufficiently interdependent, integrated and interrelated through their activities so as to provide a synergy and mutual benefit that produces a sharing or exchange of value among them and a significant flow of value to the separate parts."* Additionally, MTC provides further guidelines and options for states that depart from that definition.

Corporations are frequently involved in mergers and acquisitions. This could lead to realignment of unitary groups and therefore require state revenue departments to annually evaluate a portion of all the unitary group. Generally, states can find another state with similar unitary group principles and presume that an entity's unitary group combination and status will carry over to their own state. Yet this may <u>not</u> be always true due to subtle differences in interpretation of the law. These complexities mean that state revenue departments could need access to data from entities that do not have nexus with the state.

Fox and Luna (2010) further discussed the complication due to pass-through entities. "*States must prove that control exists in fact and excluding the entity results in an 'avoidance or evasion of tax' by the taxpayer or group of taxpayers (see MTC model statutes, section 2.B)."* States also have to enact statutes related to newly created and acquired entities. Fox states that *"in Wisconsin and West Virginia, newly incorporated firms are presumed to be part of the unitary group."*

Given the complexity in determining a unitary group, some states have offered consolidated groups of corporations the option to file their combined report as an affiliated group, i.e., including the same members as shown on the federal consolidated return. This reporting is also sometimes known as true consolidated reporting (as compared to consolidated reporting requiring a nexus). Economists have argued that states should define the term to the broadest extent permitted under the United States Constitution. This would remove a subjective determination of whether a particular subsidiary is part of a "unitary business." (Mazerov; 2012) Massachusetts in 2007 incorporated such an approach.

"...taxpayers may elect to treat as their combined group all eligible members of their affiliated group without regard to whether or not the activities of each member are unitary; such an election is also binding for a ten year period." (MA, Combined Reporting Instructions)

Proponents also support the idea of ignoring the divergence in application of the unity test on the basis of a particular state's self-interest. (Mazerov, 2012)

Income of a Unitary Group

Indiana, along with two-thirds of states, classifies business and nonbusiness income using the guidelines of UDITPA. UDITPA defines business income as *"...income arising from transactions and activity in the regular course of the taxpayer's trade or business and includes income from tangible and intangible property if the acquisition, management and disposition of the property constitute integral parts of the taxpayer's regular trade or business operations."*

Income that is not business income is generally known as allocable income. Nonbusiness income is allocated to a single state without apportionment. The UDITPA approach defines allocable income as the residual income after the unitary group's business income has been determined. Even though there is no one rule, sale of assets and certain capital gains are typically considered nonbusiness income.

The determination of income also requires eliminating intercompany transactions, regulating transfer pricing with a related entity outside the unitary group, and including income earned by a pass-through entity such as a partnership, limited liability company, estate, or trust in a combined report to the extent the income passes through to a corporation.

Foreign Income - Water's Edge vs. Worldwide Reporting

When adopting combined reporting, a state must decide how to treat international entities while determining a unitary group. This has become more important as corporations increasingly incorporate subsidiaries around the world. Even states that have not adopted a combined-reporting regime often include what the federal government characterizes as foreign-source income in the pre-apportionment income of their corporate taxpayers. Combined reporting can either be at a worldwide level, including income from all affiliates, or it can be "water's edge", which in general includes only income from U.S. affiliates.

Worldwide combined reports include all affiliates, regardless of their place of incorporation or level of U.S. business activity. Under the worldwide combined-reporting method, a state applies its apportionment formula to the combined income of all corporations in a unitary group, including foreign corporate entities. This could result in the unitary group having more corporations included in the state return than are included on the federal return. Alaska requires worldwide combined reporting for the oil and gas businesses. States that allow worldwide election on combined reporting include Connecticut, Idaho, Montana, and North Dakota.

Indiana follows the water's edge rule for the taxpayers whose petitions for combined reporting are approved or where combined reporting is required by the state. There are 28 states other than Indiana that either have a water's edge election rule or require that method.

Typically, if a corporation makes a water's edge election, the company can exclude certain foreign entities from both the calculation of combined income and the formulary apportionment factors. Most states allow a water's edge election with a stipulation that those corporations with 80% or more of their property or payroll or sales factor assigned to locations outside of the United States be excluded from a combined report. Below is an example of the "80-20" rule.

Table 3. Composition of Combined Group in Water's Edge State

Entity	Sales Factor for U.S. Receipt	Combined Group
Edinburg Corp.	15%	No
Steward Corp.	15%	No
Easter Corp.	25%	Yes
Lafayette Corp.	30%	Yes
IndyMax Corp.	100%	Yes

In the example specified in Table 3, Edinburg and Steward are not part of the combined group because they are non-U.S. corporations and their sales factors for total receipts outside the U.S. are 80% or more. Easter Corp. is a non-U.S. corporation, but its sales factor for total receipts in the U.S. is more than 20%, so it is part of the combined group. Lafayette Corp. and IndyMax Corp. are part of the combined group because they are U.S. corporations; a U.S. corporation is subject to combined reporting regardless of its U.S. sales factor.

The "80-20" rule prevents foreign corporations that have substantial U.S. operations from avoiding state taxes. While doing so it also removes the burden of auditing a substantial number of international related entities under worldwide reporting. However, it creates the possibility for tax planning using tax havens and transfer pricing. Some states have statutes allowing their revenue departments to disregard the water's edge election in order to include related foreign entities.

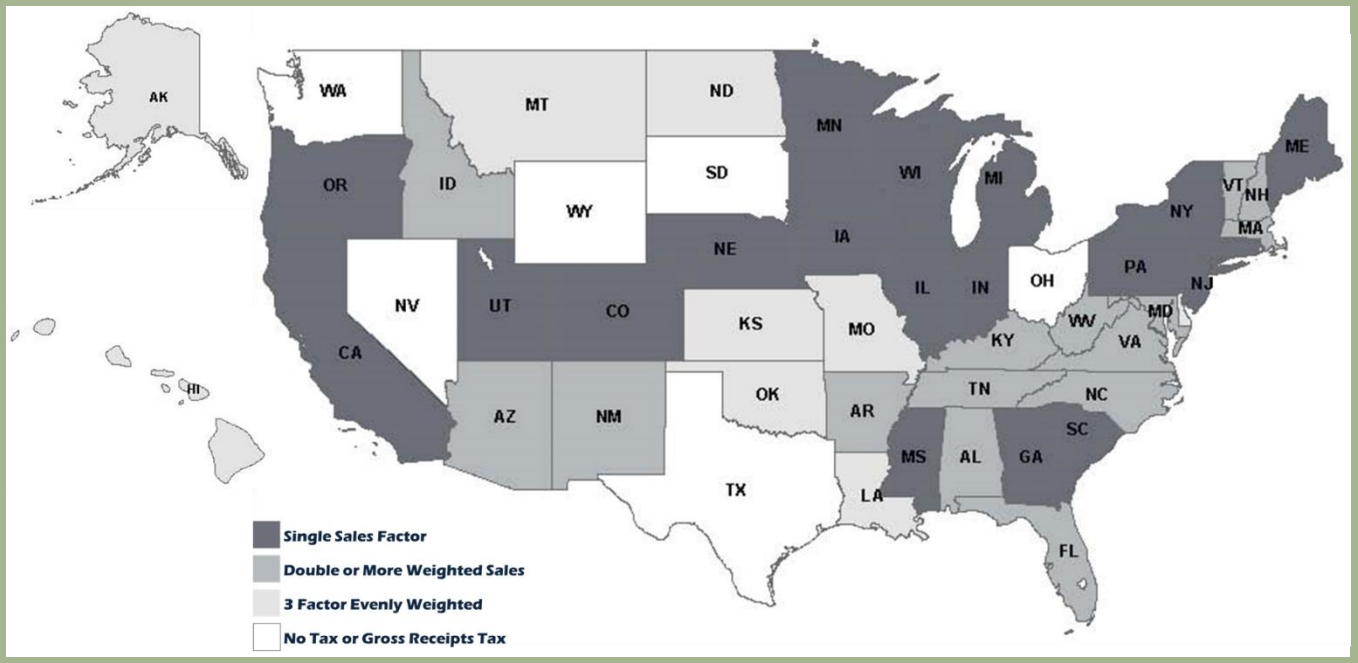
The MTC model statute requires a 10-year binding of the water's edge election. This restricts annual tax avoidance planning by the taxpayers, based on foreign subsidiaries' profit and loss. Based on MTC's model statute, some states provide their revenue departments with the authority to disregard any particular company's water's edge election if tax avoidance is the purpose of the unity.

Apportionment of Income

Once the unitary group and its income are determined, a state's formulary apportionment method is applied to the combined income of the unitary group to apportion a part of the corporation's tax base to the taxing state.

Historically, almost all states used an equally weighted, three-factor formula that uses property, payroll and sales. In the last two decades, most states have moved towards a double-weighted sales or single sales factor. The apportionment schemes used by the states are displayed in Figure 9. In 2016, the evenly weighted three-factor formula was used by only 9 states. Fifteen states used a higher weighted sales formula. Twenty states used single-sales-factor. Since 2011, Indiana has used single-sales-factor method.

Figure 9. Apportionment Formula in States, as of January 1, 2016

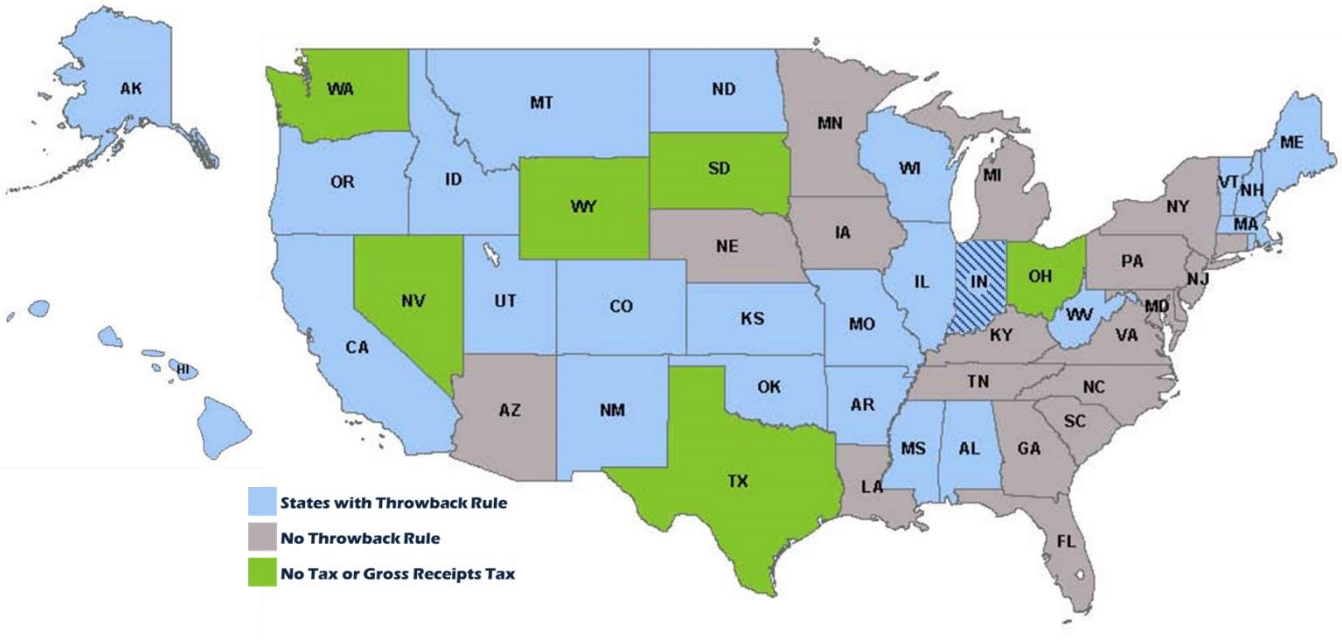


Under sales-factor apportionment, the numerator is the in-state amount of the sales, and the denominator is the total amount of the sales for the company in the United States or worldwide. The result is expressed in a percentage which is then applied to the company's unitary or separate income to arrive at the state apportioned income. The receipts that should be included in the sales factor have been a source of major corporate tax controversies related to the apportionment formula. Because states continue to give greater weight to the sales factor in the apportionment, this controversy has grown in the last decade.

Throwback Rule in Apportionment

Corporations receiving business receipts from states where they do not have nexus or are otherwise not subject to taxation, create what is called 'nowhere income'. Many states have adopted what are called 'throwback' or 'throwout' rules to identify income earned in other states but not taxed by those states. A throwout rule generally requires a taxpayer to throw out or exclude receipts from the sales factor that are attributable to a state where the taxpayer is not subject to tax. In contrast, throwback rules generally require a taxpayer to include the receipts in the origin state's sales factor numerator if the taxpayer is not taxable in the destination state. There are 25 states that currently impose a throwback rule. The throwout rule is currently followed by only two states. The use of the throwback rule by states is displayed in Figure 10.

Figure 10. Apportionment/Throwback Rule in States, as of January 1, 2016



Note: Indiana repealed its Throwback Rule, effective Tax Year 2016.

Joyce or Finnigan Apportionment Method

For apportionment, an issue in regards to combined-reporting states is whether the state adopts the Joyce or the Finnigan method. The Joyce and Finnigan methods originated from two different California court cases.[4] Generally speaking, the Finnigan method does not require a corporation to throw back sales that are made to a particular state if one of its unitary affiliates has nexus within the destination state. The Joyce method requires that corporations within the same unitary group calculate their apportionment depending on whether each corporation has nexus within the state.

In determining the apportionment, the Joyce method includes all of the apportionment factor attributes in the numerator that were derived from entities that have nexus with the taxing state. Finnigan apportionment includes the same numerator factor attributes as Joyce, plus the factors for all entities that do not have nexus with the state. Both methods use the same apportionment factor attributes in the denominator, which is all of the unitary group's total factors, regardless of nexus. Table 4 demonstrates both methods.

A separate related issue is the treatment of certain receipts that are not taxed in the destination state—whether these receipts should be "thrown back," "thrown out," or not considered. Since Indiana repealed its throwback rule, the choice of Finnigan or Joyce, with regards to members of a unitary group not taxed in the other state, would not impact the computation of their Indiana taxable income.

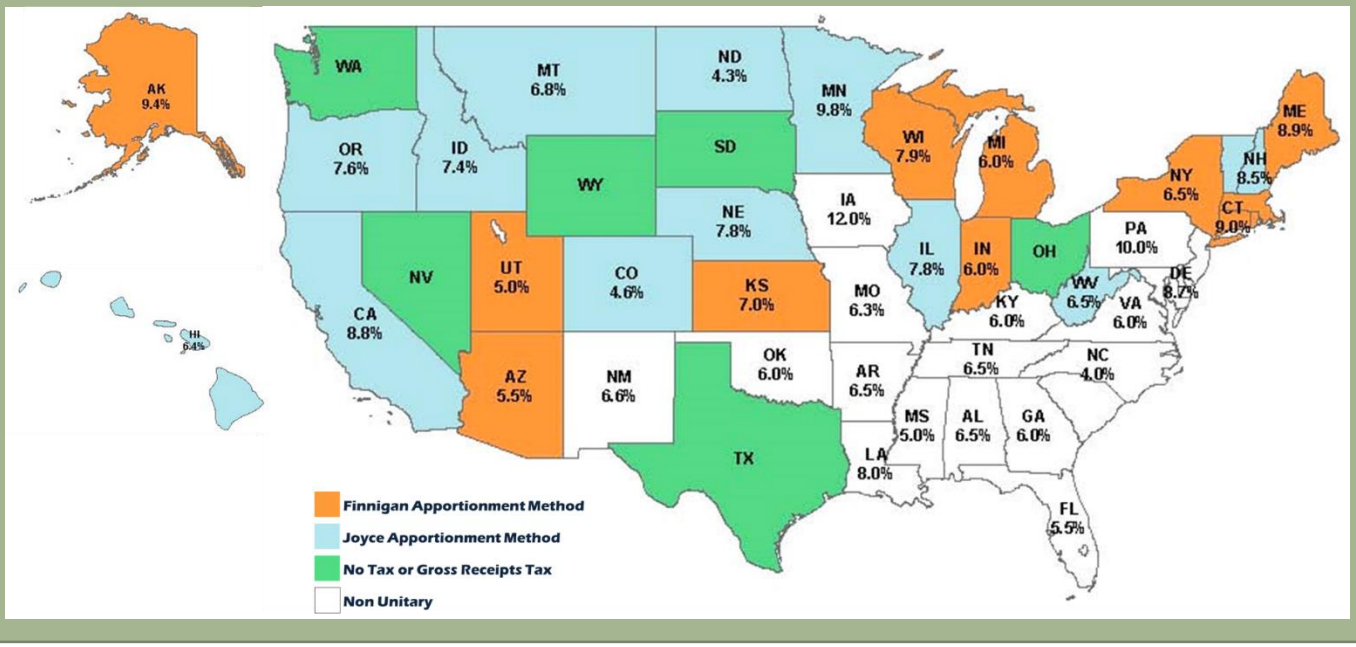
[4] See In the Matter of the Appeal of Joyce, Inc., 66-SBE-070, 11/23/1966
See In the Matter of the Appeal of Finnigan Corporation, 88-SBE-022, 08/25/1988

Table 4. Illustration of Joyce/Finnigan Apportionment Method

Taxpayer Attributes	Unitary Group			Reporting Type	
	Parent	Subsidiary A	Subsidiary B	Combined/ Joyce	Combined/ Finnigan
Indiana Nexus	Yes	Yes	No		
Total U.S Income	$10,000	$300	$6,000	$16,300	$16,300
Indiana Sales	5,000	1,500	2,000	6,500	8,500
U.S. Sales	50,000	1,500	30,000	81,500	81,500
Single Sales Factor Apportionment	10.0%	100.0%	6.7%	8.0%	10.4%
Indiana Taxable Income	**$1,000**	**$300**	**$0**	**$1,300**	**$1,700**

Figure 11 below reports the methods used in the states. Among the states with mandatory combined reporting, 11 have adopted the Finnigan approach and 13 use the Joyce approach. Other than West Virginia, all states adopting combined reporting in the last decade use the Finnigan method of apportionment. States that provide a petition or election for combined reporting must also adopt the Joyce or Finnigan method. Indiana applies the Finnigan approach to its combined report.

Figure 11. Joyce/Finnigan Adoption by Unitary States, as of January 1, 2016



Transition of Certain Tax Attributes

States that adopt combined reporting face certain transition issues related to tax attributes. Two major decisions states have to make are related to the pool of net operating loss (NOL) and tax credits available to corporate taxpayers. In a separate-reporting state (like Indiana), a taxpayer is allowed to reduce its future profit by carrying over its losses to future years. Some states also allow a carryback of losses.

When corporations suffer losses, federal and state tax codes allow them to deduct those losses against previous or future tax liabilities. These provisions are called NOL carrybacks and carryforwards. The state has to determine whether the NOL of an originally separate entity could offset the profits of its affiliates under the unitary group filing. Depending on the available pool of NOL and the number of years of carryforward available, this could reduce state revenues long after a transition. Indiana along with 27 other states allows NOL to be carried forward up to 20 years. The remaining states allow from 5 years to 15 years in carryforward. Thirteen states offer 2 years of NOL carrybacks, and three states have a more generous provision of 3-year carrybacks. Twenty-eight states do not allow NOL carrybacks. Alternatively, states could allow one member to offset income from other members only when the NOLs were generated from the business activities of the newly determined unitary group.

Nonrefundable tax credits could pose a similar issue during the transition. Generally, tax credits have a carryforward provision. A state transitioning to combined reporting would have to outline in its statute how to deal with any combinations of tax credit carryforwards.

IV: Indiana Corporate AGI Tax Reporting

Indiana has been a separate-reporting state since the inception of the Indiana Corporate Adjusted Gross Income (AGI) tax in 1963. Each corporation with Indiana adjusted gross income generally reports its tax liability on a separate-company basis using statutory apportionment rules. While separate reporting is the default filing method, a taxpayer may elect to file on a consolidated basis or request approval to file on a combined basis.

Table 5. Indiana Corporate Tax Filing Statistics – TY 2013

Number/Amount (in $)	Combined	Consolidated	Separate
Number of Tax Returns	420	979	35,423
Apportionable Business Income	47,925,368,939	76,315,574,836	235,853,621,339
Indiana Apportioned Income	850,790,591	2,257,115,232	3,350,503,876
Final Tax Liability	67,281,584	175,257,979	419,493,100
Share of Total	**Combined**	**Consolidated**	**Separate**
Number of Tax Returns	1.1%	2.7%	96.2%
Apportionable Business Income	13.3%	21.2%	65.5%
Indiana Apportioned Income	13.2%	34.9%	51.9%
Final Tax Liability	10.2%	26.5%	63.4%

Source: Indiana DOR Corporate Tax Database

To file a consolidated return for the Indiana Corporate AGI tax, the parent corporation must own at least 80% of each subsidiary's voting stock. The affiliated group may not include any corporation that does not have taxable income or loss from Indiana sources. The Indiana consolidated return must include any member of the affiliated group under IRC Section 1504 having income or loss attributable to Indiana during the year. After an affiliated group elects to file a consolidated return for Indiana purposes, the group must follow that choice for all subsequent years of filing. If the group wants to revoke the election in a subsequent tax year, it must prove good cause and receive written permission from the DOR. A taxpayer is not allowed to file a consolidated return on a retroactive basis. The most notable advantage of filing a consolidated return is that the loss from one member can be used to offset the income of the other members of the consolidated group. Another advantage is in the elimination of intercompany transactions, specifically gains on intercompany sales. A sale of property between members of a consolidated group generally has no immediate tax effect for either corporation.

Indiana corporate taxpayers can petition the DOR for permission to file a combined income tax return for a unitary group. DOR permission is granted if combined reporting more fairly reflects the unitary group's Indiana source income. However, combined reporting is limited to the boundary of the United States (i.e., the water's edge). After permission has been granted to file on a combined basis, the taxpayer must continue to file returns on this basis until the DOR grants permission to use an alternative method. The taxpayer filing the combined return must petition the DOR for permission to stop filing a combined return. A combined return includes a list of the corporations involved in the apportionment factor of the unitary filer. The taxpayer submits a combined profit-and-loss statement of the Indiana unitary group. The tax liability is computed based on an Indiana apportionment for the combined group. Each taxable member in the unitary group is assigned a share of the business income according to its relative share (its percentage share without considering any nontaxable member's share) of the unitary group's Indiana sales factors.

Indiana's Response to Tax Planning in the Last Decade

Addback Statute

Indiana has selectively targeted the most abusive tax avoidance strategies by implementing an addback of related company expenses. P.L. 162-2006 (further clarified by P.L. 250-2015) adopted the Passive Investment Company (PIC) addback, effective June 30, 2006. This established an addback of deductions taken on a corporation's federal income tax return for intangible expenses or certain intangible interest expenses paid, accrued, or incurred by the corporation with one or more members of the same "affiliated group" of corporations or with one or more foreign corporations.

For purpose of the addback, "affiliated group" is defined as one or more corporations connected through stock ownership with a common parent corporation. The affiliate group has the meaning set forth in IRC Section 1504, except that the ownership percentage is determined using 50% instead of 80%.

A common example of a related-member transaction involves the use of a passive investment company to transfer income earned and taxable in Indiana to a tax-haven state. An Indiana operating company can establish a PIC in a state that does not have a corporate income tax (like Nevada) or that has a special income tax exemption for intangibles (like Delaware). Once the company establishes a PIC in another state, the company can then transfer income (profits) to the PIC by having the PIC charge a royalty fee to the Indiana company for the use of a trademark, patent, or other type of intangible asset. This reduces the Indiana AGI tax liability of the operating company. These transactions are further complicated when a PIC loans profits back to the operating

company, and the operating company can then deduct the loan interest from Indiana AGI, thereby reducing their tax liability. Typically, large multistate retailers engage in these sorts of transactions. Companies are not required to include payments for intangibles in Indiana adjusted gross income if the company is located in another country with a comprehensive income tax treaty with the United States.

Table 6. PIC and REIT State Revenue Impact, 2006-2013

Tax Year	PIC Addback Impact (in $ mil)	REIT Addback Impact (in $ mil)
2006	19.7	0.0
2007	26.8	0.0
2008	17.0	3.2
2009	19.0	2.2
2010	19.8	2.1
2011	18.7	2.1
2012	18.1	1.6
2013	17.5	1.4

Source: Indiana DOR Corporate Tax Database

P.L. 211-2007 established an addback of deductions taken on a corporation's federal income tax return for dividends paid to shareholders of a "captive real estate investment trust" (REIT). The addback was effective beginning in tax year 2008. A REIT is a corporation, trust or association that acts as an investment agent specializing in real estate and real estate mortgages. Under the IRC a REIT, unlike an ordinary corporation, is entitled to claim a deduction for dividends paid to shareholders against their ordinary income and net capital gains. A REIT must meet certain requirements as to ownership and organization, source of income, investment of assets, and distribution of income to shareholders. Table 6 shows the state revenue impact of the PIC and the REIT addbacks.

An example of how a captive REIT may be used by a corporation to reduce its taxable income within a state is as follows: A retail corporation operates its stores in Indiana but establishes both a REIT and a subsidiary property company that is the parent to the REIT. The REIT is controlled by the property company which owns the stores operated by the corporation in Indiana. The corporation pays rent to the REIT for its Indiana stores and deducts these rent payments as a business cost from its Indiana AGI. Both the REIT and its parent property company would be established in a state such as Delaware that does not tax income distributed from either entity. The REIT is able to make tax deductible dividend distributions to the property company. Upon receiving the dividends from the REIT, the property company would then pay dividends to the parent of the company that operates the stores in Indiana. The dividends paid from the subsidiary property company to the parent would not be included in the corporation's Indiana AGI.

Throwback Rule

Indiana recently repealed its throwback rule. Effective with tax year 2016, P.L. 250-2015 eliminated the taxation of income that is attributed to a state that does not have an income tax (the "throwback rule"). An analysis conducted by Legislative Services Agency determined that this could cost the state from a minimal amount to up to $8 M. The estimate assumed a behavioral response by corporate taxpayers that could offset a portion of the revenue loss. The behavioral response rate was based on econometric research estimating the tax-base response to statutory and effective tax rate changes.

Increased Audits

In addition, in the past decade, DOR has increased audits of out-of-state entities leading to $63 M in audit assessments under the AGI tax collections in FY 2015. A substantial portion of this amount is due to misreporting by taxpayers under apportionment and sourcing of corporate income.

DOR Adjustments

Finally, because related-party tax planning strategies are dynamic and evolve beyond Indiana's statutory and administrative structure, the DOR has used general statutory authority under IC 6-3-2-2(m) to make related-party adjustments to a taxpayer's income tax filing. In doing so, the DOR in the past has rejected some taxpayers' transfer pricing studies that show that the intercompany transactions meet the arms' length standard similar to IRC Section 482. In those cases, Indiana DOR's audit concluded that the taxpayer's reported income was not fairly reflective of its Indiana source income.

IC 6-3-2-2 (m) - In the case of two (2) or more organizations, trades, or businesses owned or controlled directly or indirectly by the same interests, the department shall distribute, apportion, or allocate the income derived from sources within the state of Indiana between and among those organizations, trades, or businesses in order to fairly reflect and report the income derived from sources within the state of Indiana by various taxpayers.

Two recent court rulings addressed the DOR's authority to make adjustments under this statute.

In *Rent-A-Center East vs. Indiana Dep't of State Revenue*, the Indiana Tax Court granted summary judgment to a taxpayer and found that Indiana's tax laws do not require a member of a unitary group to file a combined return solely because there is a unitary relationship. The Court also ruled that the taxpayer's transfer pricing study was relevant in determining whether the payments between companies fairly reflected Indiana income.

In Columbia Sportswear USA Corporation vs. Indiana Dep't of State Revenue, the Indiana Tax Court found that the state had incorrectly relied on a state statute to recalculate the taxpayer's taxable income. The Court also held that the evidence did not show that the Standard Sourcing Rules failed to fairly represent Columbia Sportswear's Indiana source income.

The court rulings and a subsequent DOR Letter of Findings could affect the DOR's ability to address the intercompany transactions.

V. Administrative Transition Issues

Some economists have argued that the separate-reporting method suffers from various contentious issues like passive investment companies, transfer pricing, real estate investment trusts, asset isolation strategies, and nexus issues, and thus the proper application of the separate-reporting method could lead to more administrative and legal complications. (Mazerov, 2012) Others have argued that combined reporting is not a panacea for addressing all of these issues, and it cannot necessarily be characterized as resulting in a more transparent system as compared to a separate-reporting method. (COST, 2008) In addition to conducting a review of available research on administrative issues, we surveyed several states that have adopted mandatory combined reporting in the last decade.

As discussed earlier, combined reporting often leads to disagreements over which entities are members of a unitary group. Some of the separate filing issues, like determining an entity's nexus, continues to be an issue in the combined-reporting state. Based on case studies and a survey of state revenue departments, the most common areas of disagreements between the taxpayers and revenue departments in combined-reporting states can be summarized as the following:

(1) Unitary group determination.
(2) Creative manipulation of sales-factor apportionment.
(3) Captive insurance companies.
(4) Corporate inversion issues in water's edge election states, which means mostly moving income offshore instead to another state.
(5) Nexus establishment for affiliates.
(6) Taxpayers' lobby for additional changes to state law to minimize increased tax liability due to combined reporting.

A change in reporting method for corporate taxes could increase the administrative burden to the state. Upon adoption of the combined reporting, Wisconsin budgeted for an additional 31 large-case auditors to focus on audits of combined returns. The West Virginia State Tax Department asserted that corporate audits under combined reporting are more time-consuming and obtaining the necessary information and documentation can be more difficult. Although all states have found the determination of a unitary entity to be challenging, tax administrators in several states including West Virginia did not characterize it as a larger issue than addressing tax avoidance strategies under a separate-reporting regime.

Wisconsin allows combined groups to file as a controlled group election and to include every member in the controlled group. This makes it easier for the taxpayer and the tax administrators, and it removes altogether the question of which corporations are in the unitary group. The election is binding for 10 years. Wisconsin DOR reports that approximately 35% of combined groups have made such an election.

Other transitional issues include designing new forms, programming the processing system to accept the new forms, and training staff on the new forms. States like Indiana that already allow combined reporting through a petition or election process would have a reduced cost related to logistics and training.

Corporations also have to adapt to the new regime. If the statutory language is based on MTC standards, it is likely that several of the major Indiana taxpayers are already preparing a similar report in other mandatory combined-reporting states. Yet, there could be significant time and cost dedicated to educating smaller-size corporate taxpayers on the details of new reporting method. Administrators have also suggested allowing more time between enactment and implementation. For example, the Wisconsin law was signed in February 2009 and applied to tax year 2009, with the first estimated payment under combined reporting due in June 2009. This led to a scramble to get the taxpayers and administrators educated and ready for the change. Giving businesses a longer lead time in which to implement combined reporting would make such a transition easier. For state administrators, working with taxpayers to help them understand such a new law would be very important, and could make the transition easier on both taxpayers and tax administrators.

Appendix 1 illustrates the main items on a typical tax form in separate reporting and combined reporting. It shows the potential administrative and policy issues related to the two methods.

VI. Fiscal and Economic Impact

We examined the potential fiscal impact of requiring combined reporting by (1) developing simple hypothetical taxpayer simulations; (2) interviewing state officials, corporate accountants and attorneys, and economists who

have researched the corporate tax reporting issue; (3) examining anecdotal fiscal analysis from states adopting or considering adoption of combined reporting; (4) conducting a comparative state tax base analysis comparing states with and without combined reporting but not controlling for policy changes across states; (5) reviewing available economic and statistical research on combined reporting; and (6) using econometric procedures to estimate the relationship between corporate income tax revenue and economic and tax policy variables, including combined reporting.

Hypothetical Taxpayer Simulations

In the absence of tax avoidance issues, combined reporting is a computational method that averages the apportionment share of all the businesses in a unitary group. In calculating the state taxable income, it disregards the difference in economic profitability of two firms within a unitary group. Depending on the facts, the process of combining the income and apportionment fraction, could increase tax liability for one taxpayer while it could decrease the tax liability for another taxpayer.

In cases where one or more affiliates has a loss, combined reporting could reduce the entire unitary group's taxable income. Depending on the state combined-reporting statute, the sharing of net operating loss (NOL) and tax credits can further influence the computation. These computational impacts are not necessarily a result of any tax planning strategy. The table below shows a simple example of calculations for two hypothetical Indiana corporations under separate reporting and combined reporting. Because Indiana changed its apportionment factors to single-sales-factor in the last decade, the tables here present the calculations for a sales-factor state. Table 7 illustrates a combination of two separate entities into a unitary group and the impact of computing their liability under combined reporting vs. separate reporting. Note that in the Table 7 below the profitability of both companies is the same, and thus the combination has no computational impact.

Table 7. Example of Combined Reporting With No Tax impact

Taxpayer Attributes	Unitary Group		Combined Reporting	Parent's Return	Sub ABC's Return
	Parent	Subsidiary ABC			
Total U.S Income	$10,000	$1,200	$11,200	$11,200	$11,200
Indiana Sales	5,000	1,500	6,500	5,000	1,500
U.S. Sales	50,000	6,000	56,000	56,000	56,000
Single-Sales-Factor Apportionment	10.0%	25.0%	11.6%	8.9%	2.7%
Total Income to Total Sales Ratio	20.0%	20.0%	20.0%	20.0%	20.0%
Indiana Taxable Income	1,000	300	1,300	1,000	300
Total Indiana Tax Base	**$1,300**		**$1,300**	**$1,300**	

In Table 8, profitability of the two companies is different. In this example the company with the larger share of apportionment also has a higher profitability. Generally, this would lead to separate reporting apportioning more revenue to the state.

Table 8. Example of Combined Reporting Reducing Tax Liability

Taxpayer Attributes	Unitary Group		Combined Reporting	Parent's Return	Sub ABC's Return
	Parent	Subsidiary ABC			
Total U.S Income	$10,000	$1,500	$11,500	$11,500	$11,500
Indiana Sales	5,000	2,000	7,000	5,000	2,000
U.S. Sales	50,000	6,000	56,000	56,000	56,000
Single-Sales-Factor Apportionment	10.0%	33.3%	12.5%	8.9%	3.6%
Total Income to Total Sales Ratio	20.0%	25.0%	20.5%	20.5%	20.5%
Indiana Taxable Income	1,000	500	1,438	1,027	411
Total Indiana Tax Base	**$1,500**		**$1,438**	**$1,438**	

In Table 9, the combined-reporting method results in higher income being apportioned to the state. Note that the company with lower apportionment has a higher profitability ratio. Generally, this dynamic leads to unfavorable computation for the taxpayer under combined reporting. In other words, in this case the apportioned income to the state is higher under combined reporting. These simple examples show that the impact on a particular taxpayer does not only depend on tax planning issues, but also on the result of computation dynamics.

Table 9.: Example of Combined Reporting Increasing Tax Liability

Taxpayer Attributes	Unitary Group		Combined Reporting	Parent's Return	Sub ABC's Return
	Parent	Subsidiary ABC			
Total U.S Income	$10,000	$1,500	$11,500	$11,500	$11,500
Indiana Sales	5,000	200	5,200	5,000	200
U.S. Sales	50,000	6,000	56,000	56,000	56,000
Single-Sales-Factor Apportionment	10.0%	3.3%	9.3%	8.9%	0.4%
Total Income to Total Sales Ratio	20.0%	25.0%	20.5%	20.5%	20.5%
Indiana Taxable Income	1,000	50	1,068	1,027	41
Total Indiana Tax Base	**$1,050**		**$1,068**	**$1,068**	

As noted in this report, combined reporting also negates the tax impact of intercompany transactions between affiliated groups. Those impacts could not be captured in the simple simulations presented above. A pro forma tax form is provided in Appendix 1 to show the various differences between the separate-reporting and combined-reporting methods.

Survey & Interview

In interviewing several tax experts about the potential fiscal and economic impact, we focused the discussion separately on the short-term and long-term impact. We sent questionnaires to the states that have recently adopted combined reporting. We also held conference calls and in-person meetings with corporate accountants and economists.

The general responses were twofold. While most tax administrators believed that combined reporting neutralizes several tax planning strategies like the use of intellectual property holding companies, transfer pricing, captive real estate investment trusts, captive insurance subsidiaries, overseas management affiliates, and contract manufacturers, there was no consensus on the actual long-term fiscal and economic impact from the change in reporting method. The respondents indicated that the fiscal and economic impact depends on (1) the sectorial makeup of the corporate taxpayers in the state, (2) whether the state has an existing addback statute, (3) whether the state allows sharing of NOL and tax credits among members of a unitary group; (4) the computation impact that could not be determined a priori, and (5) counter tax planning strategies employed by the corporations.

Although there is no consensus on long-term administrative costs related to additional audit workload, there is a consensus that there would be a substantial time commitment during the transition. Vermont reported certain unitary entity disagreements reaching the appeal stage. Some economists stated that the perceived large unitary issue problem is not reflective in the minimal volume of outstanding court cases on that matter. (Mazerov)

Analysis by Other States

In estimating the impact of combined reporting, states have (1) used methods to construct the potential unitary group and compare it to separate entity filings; (2) required corporate taxpayers to file additional informational

reports which could be essentially categorized as a pro forma combined report; and (3) used the tax-base impact in other states that have adopted combined reporting and deduced the impact for the prospective state.

Construction of Sample Unitary Groups

In 1984 Wisconsin matched a database of Wisconsin taxpayers with a database from California containing the same taxpayers to recalculate the Wisconsin liability of 68 of the top 173 corporations with the highest liability for the 1977-80 period. The sample in that estimate was small and biased towards high- income taxpayers. In 1996 Wisconsin selected 2,300 Wisconsin corporations that reported income of more than $2 M or a loss carryforward of more than $2 M, and matched them with a group-level dataset from a Minnesota tax database. It identified 1,089 corporations belonging to 470 groups with nexus in both states. It then recalculated the tax liability using a microsimulation model and extrapolated it to all the corporate taxpayers. Even though this sample was relatively larger, it was not a randomly selected dataset. A review by the Council on State Taxation determined that the Wisconsin analysis resulted in a 4.2% increase in tax revenue from nonbank entities.

Pennsylvania had 138,000 C corporations filing separate returns in the year 2000. The Pennsylvania revenue department's analysis first matched the federal taxable income of those returns to the federal business master file, of which 63,500 returns matched the federal return. It was established that those businesses did not have any impact from combined reporting. The remaining 74,500 returns were matched with the Minnesota tax database. The tax impact under combined reporting was calculated, based on the matched data, sample selection, and simulation. Pennsylvania determined that combined reporting will generate an additional 25% in revenue. In addition to various statistical sources of uncertainty in the simulation, the Pennsylvania calculation was conducted on only one year of data. IHS Global Insight in its independent analysis of the study found the sampling methodology to be sound, but recommended expanding the sample to include additional years.

A report published by the Iowa Department of Revenue in 1994 concluded that implementing combined reporting would have minimal impact on Iowa corporate tax revenues. The study of 100 federal affiliated groups resulted in an estimated $4.3 M in 1992 and $750,000 in 1993 in additional revenue. A study conducted in 2003, using federal and state returns of 50 large corporations, estimated a significant impact of about $15 M in 2000 and $40 M in 2001. This study when extended further with different methodology showed an increase in revenue of up to 120% in 2002. The assumption made in computing the liabilities was broad to create significant distortion. The main issues as outlined in the report are (1) an assumption that all federal consolidated groups are engaged in a unitary business; (2) the carryforward of Net Operating Loss inventory and tax credits are ignored for the analysis; (3) the foreign source dividend income on federal returns may inflate the income; and (4) and an assumption that counter tax planning strategies will not be invoked by the taxpayers.

Pro Forma Return Analysis

In the last decade, Maryland and Rhode Island have statutorily required corporate taxpayers to file additional informational reports, which could essentially be categorized as a pro forma combined report.

Maryland required its corporate taxpayers to file pro forma combined reports for tax years 2006 to 2010. The comptroller was required to collect, compile, and analyze the information. Roughly 65,000 corporations file an income tax return in Maryland each year, with 6,100 unitary groups representing 96,400 separate entities included in the 2006 pro forma returns. The revenue was separately calculated according to the Joyce and Finnigan methods. The revenue was then compared with the actual revenue collection. The Finnigan method apportioned

more income to Maryland, and so it generated more tax revenue as compared to the Joyce method. The revenue impacts were mixed. While combined reporting resulted in increased taxpayer liabilities in TY 2006 and TY 2007, it decreased taxpayer liabilities in TY 2008 and TY 2009. In TY 2010, revenue would have decreased under the Joyce method and increased under the Finnigan method. This showed that the combined reporting impact could significantly vary across years. The comptroller also concluded that the specific apportionment method employed for combined reporting could alter the estimated revenue impacts. The total revenue over the five-year period was higher under combined reporting than under separate reporting. In sectorial terms, it showed that utilities and management companies had a net lower tax liability. Retail and manufacturing had a net higher tax liability.

Rhode Island reported that about 65% of taxpayers did not have any tax impact from the change in reporting method. About 28% would have a larger tax liability, and about 7% would have lower tax liability. The report showed that combined reporting resulted in roughly 16% in additional corporate tax revenue to the state.

These estimates based on pro forma reports assumed that the introduction of combined reporting would not have caused any changes in behavior on the part of taxpayers. Essentially, these were static fiscal analyses and did not include consideration for any counter tax planning strategy. Secondly, in the case of Maryland, the analyses reflected varying results at different stages of the business cycle, reflecting an averaging out of a portion of the fiscal impact.

Tax Base Trend Analysis

Revenue estimates based on evidence from other states would be inexact because of the unique corporate relationships and regional economies. Leading up to the enactment of the law, fiscal analyses from most states have estimated a positive fiscal impact. In 2008, New York State's Division of the Budget estimated an increase of 6% to 8% from adopting combined reporting. Connecticut's consensus revenue forecast for FY 2016 estimates a revenue gain of approximately 5% from implementing mandatory combined reporting. The New Mexico Legislative Finance Committee estimated the initial impact to be up to 10%, but expected the impact to diminish as taxpayers adjust their operations and corporate structures to minimize taxation. In 2012 the Virginia Department of Taxation estimated the revenue to increase by up to 12.5%. Because the estimates were simulated using other states' estimates, the department called the results highly speculative. In 2016, New Jersey estimated an increase in revenue of about 5% to 10%. This estimate was based on other state's estimates and was released with a caution.

Another analysis commonly used by state revenue departments is measuring the corporate tax base relative to the gross state product (GSP) for combined- and separate-reporting states. The percentage difference in the base is applied to the GSP of the prospective state. This provides the difference in the corporate tax base under the two different reporting systems. In a 2015 fiscal analysis, the Florida Revenue Estimating Conference estimated the revenue gain from the potential combined-reporting law to be between 13% and 30% of the state revenues. The analysis ignores the differences in the tax base arising from (1) other tax policy changes in the state, (2) the federal tax base impact from federal policy, and (3) changes in audit and enforcement standards. For example, during the last 20 years, 22 states have adopted a related-party addback, 20 states have adopted a single-sales-factor apportionment formula, and at least 4 states have either implemented or repealed the throwback rule.

In summary, we found that the results of other state analyses were mixed and varied across states. These estimates provided limited insights on the economic impact from a change in the reporting method. Most states estimated a gain in short-term revenue, with some estimating a negative revenue impact in some years. None of the states specifically considered the impact from counter tax planning strategies by the corporations.

Anecdotal Data Analysis

In the following subsection we report on a standard tax base analysis used by some states. It was conducted to show the difference between the tax base as a share of GSP for the two different reporting methods. A more dynamic econometric analysis and discussion was also conducted.

Most states adopting combined reporting in the last decade have changed other parts of their corporate tax laws. Vermont, Massachusetts, and West Virginia changed the tax rate. Rhode Island and Wisconsin changed the apportionment formula. Without controlling for other tax policy changes, we calculated the corporate tax base (revenue/tax rate) as a share of GSP. We averaged the tax base share over a five-year period before and after the implementation of combined reporting. Wisconsin's share remained flat. Massachusetts' tax base grew by about 4%, and New York's and Vermont's tax base as a share of GSP grew by more than 20%. West Virginia experienced a decline in corporate tax base as a share of GSP.

We also looked at the historical trend in corporate tax base as a share of GSP for combined-reporting states, separate-reporting states with the addback, and separate-reporting states without the addback (see Figure 12 below). A simple analysis without controlling for other dynamic factors shows that a larger share of GSP is apportioned as corporate tax base in a combined-reporting state as compared to separate-reporting states with or without addback.

Figure 12. Corporate Tax Imputed Base as a Share of Gross State Product

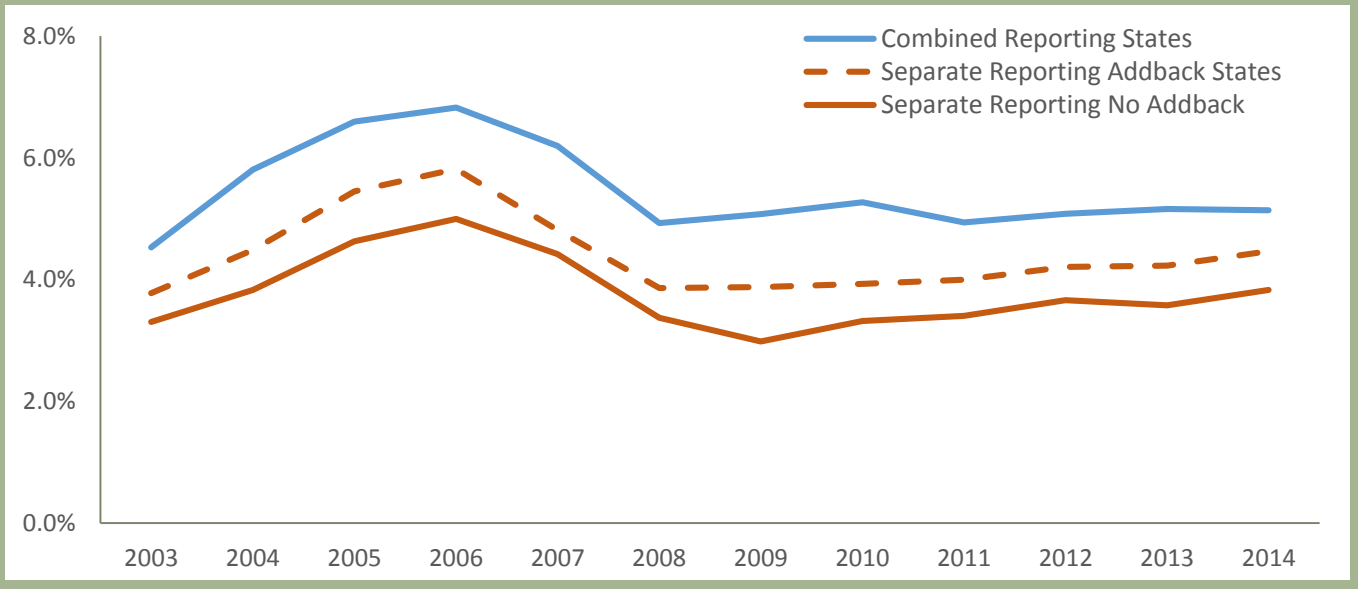
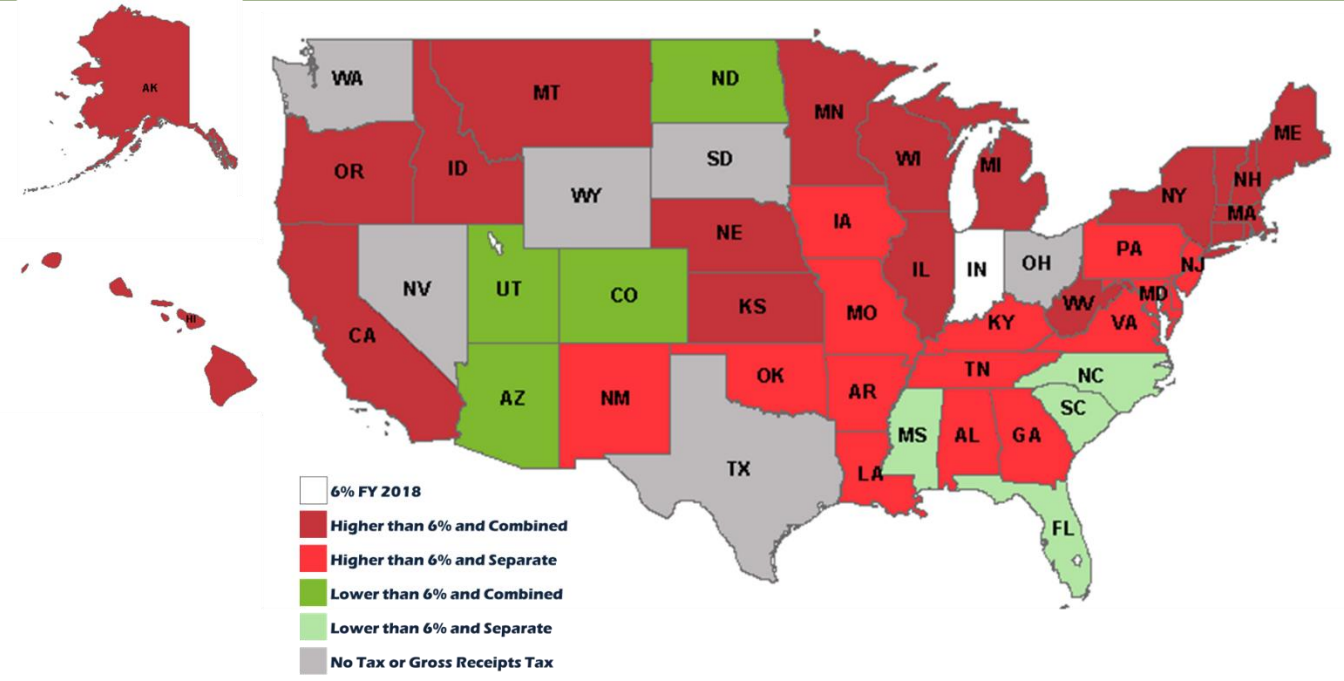


Figure 12 shows that the gap between the combined-reporting and separate-reporting states has decreased in recent years. Theoretically, this could happen because as more states adopt the combined-reporting method, the scope of tax planning strategies is being reduced. Based on current law, the map below in Figure 13 shows the states that would have a (1) higher rate than Indiana, or (2) combined reporting regime, in FY 2018. Those states are shown in shades of red. These states would likely be unfavorable destinations for moving any economic activity from Indiana. We have used Indiana's FY 2018 tax rate, which will phase down to 6% in that year and 4.9% by FY 2022.

Figure 13. Corporate Income Tax Rate & Reporting Method



Review of Research Literature Relating to Combined Reporting

The differences in state tax policy provide an empirical research opportunity to evaluate the impact of combined reporting. Researchers have exploited the lack of uniformity in state tax policies to develop observations and understanding of the impact of tax policies and attributes on businesses, state revenues, and economies (Klassen and Shackelford 1998). Since formulary apportionment in general and combined reporting in particular have evolved and been adopted by more states in the last 50 years, they have generated a significant amount of research interest.

Existing research on effects of state corporate tax policies has examined (1) corporate response to differences in states' policies, (2) the effect of tax policy and the corporate tax in general on the state economy, and (3) the revenue impacts of various tax policy variables (Gupta, Moore, Gramlich, and Hofmann, 2009, Fox and Luna, 2010). We focused on the research related to the impact of combined reporting or effective tax rate on states' revenues and economy. In essence, all tax policy questions are tied to the basic question of the significance of taxation and tax rate in general.

COMBINED-REPORTING STUDY

Corporations respond in two ways to state tax policy. The accounting responses occur through the degree of freedom available in the accounting and reporting methods. The economic response occurs through changes in organizational structure, firm's location, and investment and financial alternatives. (Hoffman, 2008) Firms do not disclose state-level profitability or accounts, so state-level accounting data is unavailable to the researchers. The tax data available to separate- and combined-reporting states pertain to different reporting regimes, but are mostly confidential. Some researchers have conducted business surveys to prepare a dataset. (Porter, 1998, Gupta and Mills, 2002)

Data pertaining to state-level economic activity is aggregated and published by state and federal agencies. Gross state product, U.S. corporate profits, and state revenue collections are all data published by federal agencies. Tax policy and laws are published by the Federal Tax Administrators and CCH's State Tax Guide. Researchers have used these data to conduct panel data analysis using fixed-effects models (Gupta, Mills, Towery 2014), firm-level case studies and descriptive economic variable analysis (Mazerov, 2010), and analysis of state tax policy post implementation. (Cowan and Kakstys, 2007)

In most statistical analyses, a dummy variable is used to control for the presence of a tax policy (e.g., combined-reporting requirement or addback statute) to help explain the impact on a tax base or gross state product. McLure (2005) opines that a corporation would not remain in a taxing state unless it was able to shift the burden of the tax on to others. On a specific tax policy matter, this would mean combined reporting could reduce economic activity in a state by driving away firms if such requirements effectively raise the corporate tax burden by disallowing some tax planning opportunities. Gupta, Moore, Gramlich, and Hofmann (2009) did not find combined reporting to be significantly associated with corporate tax revenues. Later, using a model with and without state fixed effects, Gupta (2012) found combined reporting would result in increased revenue for the adopting state.

Bruce, Deskins, and Fox (2005) determined that combined-reporting rules are effective in restoring a corporate income tax base. In 2009, with a dataset with the longer period, Fox et al. found no evidence that the existence of combined reporting affects state GSP. The study concluded that combined reporting probably increases tax revenue, but by a relatively small amount and perhaps only for a short period as firms develop alternative planning arrangements or further change their operating behavior.

In a 2010 study, Fox and Luna found that combined reporting harms state economies at tax rates higher than 7.4 percent. In a reversal from the author's previous studies, they found that combined reporting has no direct effect on tax revenues. The study found addback requirements having a very strong positive influence on tax revenues. The study concluded that addback requirements are a more effective means of raising state tax revenue than is combined reporting. This study was commissioned by the *NCSL Task Force on State & Local Taxation of Communications and Interstate Commerce*.

The above study was limited to the extent that only two states switched from separate reporting to combined reporting during the timeline used in the study. Mazerov (2012) testified to the Maryland Budget and Taxation Committee, raising questions about the data limitation of the study. Proponents, including Mazerov, have presented business case studies to show that combined reporting will help level the playing field for small, in-state business. He states that the royalty and interest "addback" legislation cannot shut down all the tax-avoidance schemes.

Cowan and Kakstys (2007) outline problems with the addback statute as follows.

> (1) Addback statutes are fairly easy to plan around. For example, if the statute requires the addback of royalties or interest, the taxpayer can create legal and management fees as the basis for a deduction.
>
> (2) The exception in law related to the addback statute has ended up being the source of disagreement and litigation. For example, if the addback trigger is based on economic substance, then taxpayers and administrators could disagree on the definition of that term.
>
> (3) The addback statutes do not address the shifting of assets to a low-tax or no-tax state, for example, when a business moves all of its investment and related income to a holding company in a tax-haven state.
>
> (4) There have been questions about the addback statutes potentially violating the nexus standards set in the Commerce Clause and Due Process clause.

Pomp and Oldman (2005) argue that tax planning with holding companies is eliminated under combined reporting. They add that combined reporting creates tax equity for in-state smaller corporations because these smaller companies do not have the resources to take advantage of advanced tax planning strategies. Pomp and Oldman also argue that combined reporting is a more accurate method to measure in-state income of corporations. This assertion can be challenged in various ways. Lastly, they suggest that combined reporting frees up state revenue administration resources from having to review transfer pricing of corporate taxpayers. Cowan and Kakstys (2007) agree with Pomp and Oldman (2005) on these matters.

Smith (2000) concludes that a state requiring worldwide reporting would be successful in shutting down most of the impact from transfer pricing. Others have determined that combined reporting negatively affects foreign investment and location of assets and labor (Moore, Steec and Swenson, 1987). Finally, there has been disagreement among researchers about the complexities arising from the combined report. Some have called it significantly complex and uncertain for taxpayers and tax administrators (Fox, 2010), whereas others argue that any burden is minimal for the larger corporations because they already file on a unitary basis in other states. (Pomp, 2005, Mazerov, 2012)

An example in contrast, a study by Cowan and Kakstys (2007) discussed the efficacy of the tax reform laws of New Jersey in 2002 and Vermont in 2004. New Jersey, in its 2002 overhaul, added an addback statute in its overall reform package. Vermont, in its 2004 reform, became the first state in over 20 years to adopt mandatory combined reporting. *"The Article concludes that the process behind Vermont's 2004 reform provides an excellent road map to other states hoping to truly reform their corporate tax systems through combined reporting. Further, the mechanics of New Jersey's 2002 corporate tax changes, while falling short of true "reform," can nonetheless provide some guidance to states..."*

To summarize, the majority of the research suggests that combined reporting may reduce distortions in reported taxable income among related companies arising due to tax planning. The research also suggests that combined

reporting may create new distortions related to the averaging effect for a large number of taxpayers with different profitability across businesses.

There is a general agreement that the separate-reporting method provides state corporate taxpayers with the opportunity to create favorable business structures and intercompany transactions that shift income from affiliates based in high-tax states to affiliates based in low-tax or no-tax states. However, there are conflicting viewpoints on whether combined reporting is more complex and whether it will generate more revenue for the state. There is also disagreement on whether the addbacks and combined reporting have a positive revenue and economic impact. Although, some researchers have pointed to the fragile nature of the addback laws and suggested that methods other than combined reporting are defenseless against tax planning, others have found addback requirements as a more effective means of raising state tax revenue than combined reporting.

Econometric Analysis

Summary

We use econometric techniques to examine how state tax policies, including combined reporting, influence state corporate income tax revenue. We model corporate income tax revenue as a function of economic and tax policy factors. We also statistically control for the effects of other factors, including economic and policy factors, that we cannot measure explicitly but which impact corporate income tax revenue as well. The econometric models we construct for this study are consistent with the procedures used in prior published research that we have reviewed in this section.

The econometric results suggest that combined reporting may have an initial positive impact on corporate income tax revenue but that this impact is not lasting. We estimate that the initial positive impact could potentially be economically significant, with an estimated average impact of about 16.5%. However, we also estimate that this impact will only be short term and will decline to zero in the long run.

Detailed Analysis

The econometric models estimate the correlation between annual state corporate income tax revenue and the following economic and tax policy factors:

- A state's gross state product
- A state's corporate income tax rate
- The weight on the sales factor in a state's apportionment factor scheme
- Whether a state has adopted an addback for intangible expenses paid to a passive investment company (PIC) by a corporate taxpayer
- Whether a state has adopted a throwback rule for corporate taxpayers
- Whether a state has adopted a combined-reporting requirement for corporate taxpayers
- A state's sales tax rate
- A state's personal income tax rate.

The statistical estimates from these econometric models are generated using annual data for 18 years (1997 to 2014) from 44 states that have imposed corporate income taxes during that time period. This gives us a sample of 787 data points for a time period that includes two recessions and considerable change in state corporate income taxes, including 6 states adopting combined reporting. The econometric models and procedures enable

us to isolate from all other factors the fiscal impact of combined reporting. The estimated fiscal impact will depend on several different dynamic impacts that could potentially result if combined reporting is imposed. Fox and Luna (2010) suggest that:

> [c]ombined reporting can potentially affect state tax revenues through several channels, and our goal is to measure the net of these effects. First, combined reporting can lead to a more accurate measure of corporate profits. This should lead to greater tax liability for some combined groups but lower tax liability for other groups, meaning the influence on total tax revenues is uncertain. Second, combined reporting can help close or lessen the tax benefits from certain tax planning activities. This should increase tax revenues to the extent that combined reporting is an effective tool for closing loopholes. Third, tax revenues are expected to fall to the extent that adoption of combined reporting harms the state's economy or rise if combined reporting enhances the economy (pp. vi-vii).

Combined reporting could lead to a net revenue increase, net revenue reduction, or no net change in revenue depending on the weight assigned to each of the potential separate impacts outlined by Fox and Luna. The ambiguity in the potential impact of combined reporting tends to be confirmed by the anecdotal evidence from other states and evidence from prior econometric studies outlined earlier in this section and the hypothetical taxpayer analysis presented earlier in the report (pp. 24-25). Thus, while we expect the econometric estimates to suggest that combined reporting would have a positive fiscal impact, it would not be surprising if the estimated fiscal impact is not.

Table 10. Estimated Determinants of State Corporate Income Tax Revenue

Factor	Impact on Revenue
Gross State Product	Positive*
Corporate Income Tax Rate	Positive*
Sales Factor Weight	Negative
PIC Addback	Positive
Throwback Rule	Positive*
Combined Reporting Requirement	Positive
Sales Tax Rate	Negative
Personal Income Tax Rate	Positive*

Notes
*Statistically significant impact estimate.

Table 10 summarizes the estimated impacts of the economic and policy factors that we focus on. Detailed statistical results and explanation for three revenue models are contained in Appendix 4 at the end of this report. The estimates are generally intuitive suggesting that a state's economic output and its corporate income tax rate positively impact revenue from the corporate income tax. These two impact estimates are statistically significant. As would be expected, these two factors are the primary drivers of corporate tax revenue differences among the states when we isolate them from the influence of other economic and tax policy factors.

The other corporate tax policy factors also appear to have the expected revenue impacts. However, some of these estimates are problematic since they are not statistically significant or statistically discernible from a zero impact. The throwback rule does have a statistically significant positive impact on revenue. However, we cannot conclude statistically that either the sales-factor weight or PIC addback impact revenue. On the other hand, the throwback rule does serve to increase corporate income tax revenue. The state sales tax rate does not have a statistically discernible impact on corporate tax revenue. This factor is included in the econometric model to account for whether the magnitude of sales tax being paid by business impacts corporate business operations in a state and, as a result, corporate tax revenue. However, the results suggest that a state's personal income tax

rate may positively impact corporate tax revenue. Thus, higher personal income tax rates holding the corporate tax rate fixed at the average rate may increase the selection of C corporation status for business organizations in lieu of pass-through status and, as a result, increase corporate tax revenue.

The base revenue model provides an estimate of the initial revenue impact only from adopting a combined-reporting requirement. This model suggests that combined reporting does not have an impact on corporate income tax revenue. Specifically, while the impact estimate is positive, it is not statistically significant or discernible from a zero impact. We estimate a second revenue model that again estimates the initial revenue impact of combined reporting, but we also statistically control for any potential lag in effects of combined reporting. As a result, the second model will indicate whether the initial revenue impact of a combined-reporting requirement will persist in future years or change. The estimates gleaned from the second model suggest that a combined reporting requirement could potentially lead to an increase in corporate income tax revenue, but that the revenue increase will not persist. In fact, the estimates suggest that the positive revenue impact will dissipate to zero in the long run. This result appears to confirm the conjecture of Fox and Luna that is quoted above.

A third model is estimated in which we statistically interact the combined-reporting factor with the PIC addback factor. The purpose of this interaction is to examine whether the potential impact of adopting combined-reporting is lower in states that already impose a PIC addback when combined reporting is adopted. While the impact estimates seem to point in this direction, they are not statistically significant, so it is appropriate only to suggest that there is no impact.

Bibliography

Barnwell Jr., "Charles F. State Tax Planning – What's Left" *State Tax Notes.* (2009)

Brunori, David. Stop Taxing Corporate Income, *State Tax Notes*. (2002)

Cline, Robert. "Combined Reporting Understanding the Revenue and Competitive Effects of Combined Reporting" *Council of State Taxation*. (2008)

Colorado Taxpayers Service Division. Combined and Consolidated Corporation Returns. (2015)

Columbia Sportswear USA Corporation vs. Indiana Dep't of State Revenue; (2015) http://www.in.gov/judiciary/opinions/pdf/12181501mbw.pdf

Common Wealth of Massachusetts. "Study Commission on Corporate Taxation, Final Report" (2007)

Deskins, John. "Are Tax Policy Distortions Increasing?" *Creighton University*, (2007)

Dickerson, Barb, Krista Howard. "In Donnelley, Arizona Supreme Court Continues Support of State's Unique Approach to Defining a 'Unitary Business'" *Deloitte, Multistate Tax Report*. (2011)

Ernst & Young Global Limited. "2015-16 Worldwide Transfer Pricing Reference Guide" (2016)

Flinchbaugh, Staci, "Slicing a Shadow": The Debate over Combined Reporting and Its Effect on Wisconsin's Business Climate, *Marquette Law Review*. (2009)

Florida Revenue Estimating Conference, Fiscal Analysis of HB 1221, (2015)

Fox, William F., Donald Bruce, and John Deskins,. "On The Extent, Growth, and Efficiency Consequences of State Business Tax Planning" *University of Tennessee and Creighton University*. (2005)

Fox, William, Deskins, John, Bruce, Donald, "On the Relative Distortions of State Sales and Corporate Income Taxes" (2008)

Fox, William, LeAnn Luna, Rebekah McCarty, Ann Boyd Davis, Zhou Yang. "An Evaluation of Combined Reporting in the Tennessee Corporate Franchise and Excise Taxes" *Tennessee Comptroller of the Treasury*. (2009)

Fox, William F. and LeAnn Luna. "Combined Reporting with the Corporate Income Tax- Issues for State Legislatures" *NCSL Task Force on State & Local Taxation of Communications.* (2010)

Giroud, Xavier, Joshua Rauh. "State Taxation and the Reallocation of Business Activity:

Evidence from Establishment-Level Data" NBER Working Paper No. 21534. (2016)

Gruber, Jonathan, and Joshua Rauh. "How Elastic is the Corporate Income Tax Base?" *Presented at Taxing Corporate Income in the 21st Century, co-sponsored by the Office of Tax Policy Research at the University of Michigan and the Burch Center at the University of California, Berkeley*. (2005)

Gupta, Sanjay, Jared Moore, Jeffery Gramlich, Mary Ann Hofmann. "Empirical Evidence on Revenue Effects of State Corporate Income Tax Policies." *National Tax Journal* (2009)

Gupta, Sanjay. Lillian F. Mills, and Erin M. Towery. "The Effect of Mandatory Financial Statement Disclosures of Tax Uncertainty on Tax Reporting and Collections: The Case of FIN 48 and Multistate Tax Avoidance. *American Accounting Association.* (2014)

Gupta, S. and L. Mills. "Corporate Multistate Tax Planning: Benefits of Multiple Jurisdictions." *Journal of Accounting and Economics.* (2002)

Hawkins, Bret. "CPM: The World Transfer Pricing Method". *The Tax Adviser* (2008)

Hoffman, Mary A. "The state corporate income tax: A Synthesis of recent research" *Journal of Accounting Literature*. (2002)

Huddleston, Joe, Shirley Sicilian. "History and Consideration for Combined Reporting: Will States Adopt a Model Combined Reporting Statute?" *The Tax Lawyer - The State and Local Tax Edition*. (2008)

Idaho State tax Commission, Guide to Combined Reporting, (2008)

Institute of Taxation and Economic Policy. "Combined Reporting of State Corporate Income Taxes: A Primer" (2011)

IRS, Statistics of Income, "Table 1, Number of Returns, Total Receipts, Business Receipts, Net Income, Tax Year 1980-2012," (2015)

Klassen, Kenneth, Douglas Shakelford. State and provincial corporate tax planning: income shifting and sales apportionment factor management. *Journal of Accounting and Economics* (1998)

Maryland Department of Legislative Services. "Fiscal Note on Business Relief and Tax fairness Act of 2015." (2015)

Mathias, Randel. The Container Aftermath: The Unconstitutionality of California's Unitary Corporate Tax Concept as Applied to a Foreign Parent Corporation; *Santa Clara Law Review*, (1985)

Mazerov, Michael. Growing Number of States Considering a Key Corporate Tax Reform, *Washington, D.C.: Center on Budget and Policy Priorities.* (2007)

Mazerov, Michael, State Corporate Tax Shelters and the Need for "Combined Reporting" *Center on Budget and Policy Priorities.* (2007)

Mazerov, Michael. "Testimony before Maryland Senate & Budget and Taxation Committee. Regarding SB 269 – Combined Reporting" *Center on budget and Public Policy.* (2012)

Martin, J. McMahon Jr., "Understanding Consolidated Returns" *University of Florida Levin College of Law*, (2012)

Maryland Department of Legislative Services, Fiscal Analysis of SB 34, (2016)

McAfee, Lindsay C. "Making Taxes More Certain: Iowa State Legislators' Guide to Combined Reporting" *The University of Iowa, College of Law.* (2010)

McIntyre, Michael J, Paull Mines, and Richard D. Pomp. "Designing a Combined Reporting Regime for a State Corporate Income Tax: a Case Study of Louisiana." *Louisiana Law Review* 61 (2001)
McLure, Charles E. Jr., "How - and How Not - to Tax Business" *State Tax Notes, Vol. 36. No. 1.* (2005)

McMahon, Paul B. "Assessing Industry Codes on the IRS Business Master File" *Statistics of Income Division, Internal Revenue Service.* (2005)

Moore, Michael, Bert Steece, Charles Swenson. "An Analysis of the Impact of State Income Tax Rates and Bases on Foreign Investment" *The Accounting Review.* (1987)

Multistate Tax Commission. "Proposed Model Statute for Combined Reporting" (*As amended by the Multistate Tax Commission July 29, 2011)* (2011)

Munson, Jay. Combined Reporting: An option for Apportioning Iowa Corporate Income Tax; *Iowa Department of Taxation.* (2007)

New Jersey, Office of Legislative Estimate, Fiscal Analysis of SB 982, (2016)

New Mexico, Legislative Finance Committee, Fiscal Analysis of SB 56, (2015)

Oakleaf, Michael. "Wisconsin Corporate Income and Franchise Taxes" *Wisconsin Department of Revenue*. (2016)

Oldman, Oliver, Pomp, Richard D., State and Local Taxation Vol. 2, (2005)

Ortiz, Lisandra. "Joyce v. Finnigan: Adoption of the "Best" Approach in Hopes of Some Uniformity" *Tax Lawyer.* (2014)

Petska, Tom, Michael Parisi, Kelly Luttrell, Lucy Davitian, and Matt Scoffic. "An Analysis of Business Organizational Structure and Activity from Tax Data". *Internal Revenue Service* (2005)

Porter, S. The effects of alternative state tax regimes on firms' accounting and financing decisions. *Journal of American taxation Association*. (1998)

Rappa, John. "Adoption of Combined Reporting in Selected States". "*Office of Legislative Research Connecticut General Assembly"*. (2015)

Rent-A-Center East v. Indiana Dep't of State Revenue; (2015)
http://www.in.gov/judiciary/opinions/pdf/09101501mw.pdf

Rhode Island Department of Revenue. Tax Administrator's Study of Combined Reporting Study. (2014)

Sicilian, Shirley K., Karl Frieden, Bruce Fort, Keith Robinson. "BEPS and Transfer Pricing Implications for State and Local Tax". (2016)

Smith, J. "Guide to state corporate income tax apportionment, Parts I and II." *Journal of State Taxation.* (2000)

Virginia Department of Taxation, Fiscal Analysis of HB 1267, (2012)

Whittington, Amie T. "Back to Basics: Consolidated Tax Returns" *CCH*. (2007)

Appendix 1 - Taxable Income of an Indiana Company under Separate-Reporting

The table below shows the taxable income of a hypothetical Indiana company and its subsidiaries under separate filing. Note that the intercompany transactions are not taken out. If the income of the Nevada subsidiary with no connections to Indiana is inflated using intercompany transactions, it would reduce the taxable income of the Indiana subsidiaries.

Example of Calculation of State Taxable Income under Separate Reporting

Operators	Tax Form Item	Indiana Parent	Indiana Subsidiary	Kentucky Subsidiary	Nevada Subsidiary
STEP I	**Computation of AGI**				
	Federal Taxable Income before NOL	-$12,000	$800	$7,000	$15,000
+-	State Adjustments	1,000	250	0	0
-	Non Apportioned Income	0	0	0	0
=	Taxable Income	-11,000	1,050	7,000	15,000
STEP II	**Taxpayer's Apportionment Share**				
	Indiana Sales	5,000	200	1,000	0
÷	U.S. or Worldwide Sales	55,000	5,200	70,000	27,500
	Indiana Apportionment Share	9.09%	3.85%	1.43%	0.00%
STEP III					
	Indiana Apportioned Business Income	-1,000	40	100	0
+	Indiana Nonapportioned Income	0	0	0	0
	Member's Indiana Income Before NOL	-1,000	40	100	0
STEP IV	**NOL Carry Forward**				
	Member's Indiana Income Before NOL	-1,000	40	100	0
-	Member's NOL Carryforward	0	200	0	0
=	Income after NOL Carryforward	-1,000	-160	100	0
=	**Member's Taxable Income after NOL**	**0**	**0**	**100**	**0**
	Separate Entity's Profit/Loss Ratio	**-20.0%**	**20.2%**	**10.0%**	**54.5%**
	Separate Entity's Apportionment %	**9.1%**	**3.8%**	**1.4%**	**0.0%**
	Separate Entity's Taxable Income	**$0**	**$0**	**$100**	**$0**

Note: Intercompany transactions are not taken out. This could influence the income.

Policy Question: Throwback Rule or Not? Market Sourcing or COP?

Taxable Income of a Unitary Group under Combined Reporting.

The table below shows the calculation of taxable income under combined reporting for the same group. In this example, due to the unitary group impact, averaging of apportionment factors, and NOL from one entity being spread out between all entities, the net taxable income of this unitary group is higher under combined reporting.

Example of Calculation of State Taxable Income under Combined Reporting

Operators		Indiana Parent	Indiana Subsidiary	Kentucky Subsidiary	Nevada Subsidiary	Combined Group
STEP I	**Unitary Entity Combined Income**					
	Federal Taxable Income before NOL	-$12,000	$800	$7,000	$15,000	$10,800
+-	State Adjustments	1,000	250	0	0	1,250
-	Non Apportioned Income	0	0	0	0	0
+	Apport. Income from another Unitary Group	0	0	0	0	0
=	Taxable Income (Separate)	-11,000	1,050	7,000	15,000	12,050
-	Income from Intercompany Transactions*	1,000	50	-50	-1,000	0
=	Unitary Group Income	-10,000	1,100	6,950	14,000	12,050
STEP II	**Unitary Group Apportionment Share**					
	Indiana Sales	5,000	200	1,000	0	6,200
÷	U.S. or Worldwide Sales	55,000	5,200	70,000	27,500	157,700
	Indiana Apportionment Share	9.09%	3.85%	1.43%	0.00%	3.93%
STEP III	**Unitary Group Combined Indiana Income**					
	Unitary Entity Combined Income					12,050
x	Unitary Group Apportionment Share					3.93%
=	Unitary Group Apportioned Income					474
+	Non Apportionable Income					0
=	Unitary Group Taxable Income					474
STEP IV-A	**Member's Apportionment in Unitary Group**					
	Member's Indiana Sales	$5,000	$200	$1,000	$0	$6,200
÷	Unitary Group Total Sales**	157,700	157,700	157,700	157,700	157,700
=	Member's Apportionment Share	3.17%	0.13%	0.63%	0.00%	3.93%
STEP IV-B	**Member's Share of Indiana Unitary Income**					
	Member's Apportionment Share	3.17%	0.13%	0.63%	0.00%	3.93%
x	Unitary Entity Combined Income	12,050	12,050	12,050	$12,050	12,050
	Member's Income before NOL	382	15	76	0	474
STEP V-A	**NOL Carry Forward**					
	Member's Indiana Income	382	15	76	0	474
-	Member's NOL Carryforward	0	200	0	0	$200
=	Income after NOL Carryforward	382	-185	76	0	274
+	Shareable NOL	0	185	0	0	185
STEP V-B	**Allocation of NOL Carry Forward**					
	Members Net Positive Income	382	0	76	0	458
	Members Share of Net Positive Income	83.3%	0.0%	16.7%	0.0%	100.0%
x	Sharable NOL	-185	-185	-185	-185	-185
=	Member's Assigned NOL Carryforward	-154	0	-31	0	-185
+	Member's Net Positive Income	382	0	76	0	458
=	**Member's Taxable Income after NOL**	**228**	**0**	**46**	**0**	**274**
	Unitary Group's Profit/Loss Ratio					**7.6%**
	Unitary Group's Apportionment %					**3.9%**
	Unitary Group's Taxable Income					**$274**

Enforcement/Policy Issue: Who is included in the Unitary Group?

Policy Question: Joyce or Finnigan/ Throwback Rule or Not?

Policy Question: Allow the NOL to be shared or separate? (Same question for tax credit, not shown here)

* Intercompany Sales are removed in calculating the apportionment
** Some receipts of the unitary group may be eliminated in case of some taxpayers.
** Totals may not addup due to rounding.

Appendix 2 - State Tax Rates and Reporting Requirements.

State Tax Rate & Taxable Income Determination

	Tax Rate	Method of Reporting	Related Party Addback	Water's Edge/Worldwide
Alabama	6.50%	Separate	YES	
Alaska	0 - 9.40%	Mandatory	No	Water's Edge/Worldwide Oil
Arizona	5.50%	Mandatory	No	Water's Edge
Arkansas	1.0% - 6.5%	Separate	YES	
California	8.84%	Mandatory	No	Water's Edge
Colorado	4.63%	Mandatory	No	Water's Edge
Connecticut	7.50%	Mandatory	YES	Water's Edge
Delaware	8.70%	Separate	No	
Florida	5.50%	Separate	No	Water's Edge
Georgia	6.00%	Separate	YES	
Hawaii	4.40% - 6.40%	Mandatory	No	Water's Edge
Idaho	7.40%	Mandatory	YES	Water's Edge
Illinois	7.75%	Mandatory	YES	Water's Edge
Indiana	6.50%	Petition/Audit	YES	Water's Edge
Iowa	6.0% - 12.0%	Separate	No	
Kansas	4.00%	Mandatory	No	
Kentucky	4.00% - 6.00%	Separate	YES	Water's Edge
Louisiana	4.00% - 8.00%	Separate	No	
Maine	3.50% - 8.93%	Mandatory	No	Water's Edge
Maryland	8.25%	Separate	YES	Water's Edge
Massachusetts	8.00%	Mandatory	YES	Water's Edge
Michigan	6.00%	Mandatory	YES	Water's Edge
Minnesota	9.80%	Mandatory	No	Water's Edge
Mississippi	3.00% - 5.00%	Petition/Audit	YES	
Missouri	6.25%	Separate	No	
Montana	6.75%	Mandatory	No	Water's Edge
Nebraska	5.58% - 7.81%	Mandatory	No	Water's Edge
Nevada	0.00%	Gross Receipt	GRT	
New Hampshire	8.50%	Mandatory	No	Water's Edge
New Jersey	9.00%	Separate	YES	
New Mexico	4.8% - 6.6 %	Petition/Audit	No	Water's Edge
New York	6.50%	Mandatory	YES	Water's Edge
North Carolina	4.00%	Petition/Audit	YES	Water's Edge
North Dakota	1.41% - 4.31%	Mandatory	YES	Water's Edge
Ohio	0.00%	Gross Receipt	GRT	
Oklahoma	6.00%	Petition/Audit	YES	
Oregon	6.60% - 7.60%	Mandatory	Yes	Water's Edge
Pennsylvania	9.99%	Separate	No	
Rhode Island	7.00%	Mandatory	YES	Water's Edge
South Carolina	5.00%	Petition/Audit	No	
South Dakota	0.00%	No Tax	No Tax	
Tennessee	6.50%	Petition/Audit	YES	
Texas	0.00%	Gross Receipt	GRT	
Utah	5.00%	Mandatory	No	Water's Edge
Vermont	6.0% - 8.5%	Mandatory	No	Water's Edge
Virginia	6.00%	Petition/Audit	YES	Water's Edge
Washington	0.00%	Gross Receipt	GRT	
West Virginia	6.50%	Mandatory	YES	Water's Edge
Wisconsin	7.90%	Mandatory	YES	Water's Edge
Wyoming	0.00%	No Tax	No Tax	

Sources: CCH State Tax Guide, Federal Tax Administrators, State Statutes and State Agency Resources.

Appendix 3 – Income Apportionment Method by State

State Apportionment Methods

State	Method of Apportionment	Throwback	Joyce/Finnigan
Alabama	3 Factor Double Weighted Sales	Yes	Non Unitary
Alaska	3 Factor Evenly Weighted	Yes	Finnigan
Arizona	3 Factor Double Weighted Sales	No	Finnigan
Arkansas	3 Factor Double Weighted Sales	Yes	Non Unitary
California	Single Sales Factor	Yes	Joyce
Colorado	Single Sales Factor	Yes	Joyce
Connecticut	Single Sales Factor	No	Finnigan
Delaware	3 Factor Evenly Weighted	No	Non Unitary
Florida	3 Factor Double Weighted Sales	No	Non Unitary
Georgia	Single Sales Factor	No	Non Unitary
Hawaii	3 Factor Evenly Weighted	Yes	Joyce
Idaho	3 Factor Double Weighted Sales	Yes	Joyce
Illinois	Single Sales Factor	Yes	Joyce
Indiana	Single Sales Factor	No	Finnigan
Iowa	Single Sales Factor	No	Non Unitary
Kansas	3 Factor Evenly Weighted	Yes	Finnigan
Kentucky	3 Factor Double Weighted Sales	No	Non Unitary
Louisiana	3 Factor Evenly Weighted	No	Non Unitary
Maine	Single Sales Factor	Yes	Finnigan
Maryland	3 Factor Double Weighted Sales	No	Non Unitary
Massachusetts	3 Factor Double Weighted Sales	Yes	Finnigan
Michigan	Single Sales Factor	No	Finnigan
Minnesota	Single Sales Factor	No	Joyce
Mississippi	Single Sales Factor	Yes	Non Unitary
Missouri	3 Factor Evenly Weighted	Yes	Non Unitary
Montana	3 Factor Evenly Weighted	Yes	Joyce
Nebraska	Single Sales Factor	No	Joyce
Nevada	GRT	GRT	GRT
New Hampshire	3 Factor Double Weighted Sales	Yes	Joyce
New Jersey	Single Sales Factor	No	Non Unitary
New Mexico	3 Factor 70% Weighted Sales	Yes	Non Unitary
New York	Single Sales Factor	No	Finnigan
North Carolina	3 Factor Triple Weighted Sales	No	Non Unitary
North Dakota	3 Factor Evenly Weighted	Yes	Joyce
Ohio	GRT	GRT	GRT
Oklahoma	3 Factor Evenly Weighted	Yes	Non Unitary
Oregon	Single Sales Factor	Yes	Joyce
Pennsylvania	Single Sales Factor	No	Non Unitary
Rhode Island	Single Sales Factor	Yes	Finnigan
South Carolina	Single Sales Factor	No	Non Unitary
South Dakota	No Tax	No Tax	No Tax
Tennessee	3 Factor Double Weighted Sales	No	Non Unitary
Texas	GRT	GRT	GRT
Utah	Single Sales Factor	Yes	Finnigan
Vermont	3 Factor Double Weighted Sales	Yes	Joyce
Virginia	3 Factor Double Weighted Sales	No	Non Unitary
Washington	GRT	GRT	GRT
West Virginia	3 Factor Double Weighted Sales	Yes	Joyce
Wisconsin	Single Sales Factor	Yes	Finnigan
Wyoming	No Tax	No Tax	No Tax

Sources: CCH State Tax Guide, Federal Tax Administrators, State Statutes and State Agency Resources.

Appendix 4 – Technical Discussion of Econometric Analysis

We use state-level panel data to estimate fixed-effects regression models with the general form:

$$\text{CIT Revenue}_{it} = \beta_0 + \beta_1 \text{GSP}_{it} + \beta_2 \text{CIT Rate}_{it} + \beta_3 \text{Sales Wgt}_{it} + \beta_{4it} \text{PIC Addback}_{it} + \beta_5 \text{Throwback}_{it} + \beta_6 \text{Combined Rpt}_{it} + \beta_7 \text{STRate} + \beta_8 \text{PITRate} + \varepsilon_{it}$$

The indices i and t are state and year indices. All regressions include state- and year-specific fixed effects to control for state- and time-specific factors not explicitly measured or included in the regression model. Table A4.1 below reports variable names, abbreviations, and data sources.

Table A4.1: Variable Definitions and Sources

Variable	Abbreviation	Source
Corporate Income Tax Revenue (in millions)	CIT Revenue	U. S. Census Bureau, *Local Government Finances: 1997-2014*.
Gross State Product (in millions)	GSP	U. S. Bureau of Economic Analysis, *Regional Economic Accounts: 1997-2014.*
Corporate Income Tax Rate (percent)	CIT Rate	Commerce Clearing House, State Tax Reporter, various years; Commerce Clearing House, Multistate Corporate Income Tax Guide, various years; state tax forms and contacts with state revenue department personnel.
Sales Factor Wgt. (percent)	Sales Wgt	Same
PIC Addback*	PIC Addback	Same
Throwback Req.*	Throwback	Same
Combined Reporting Req.*	Combined Rpt	Same
Sales Tax Rate (percent)	ST Rate	Same
Personal Income Tax Rate (percent)	PIT Rate	Same

*Binary variables where 1 equals the presence of the attribute and 0 equals the absence of the attribute.

CIT Revenue is the annual corporate income tax revenue generated by a state, and GSP is the annual gross state product attributable to a state. Both variables are measured in constant dollars. In addition both variables are entered as natural logs to correct for nonnormal distributions and control for the scaling effects from the wide variation in CIT Revenue and GSP between large and small states.

The model includes several corporate tax policy factors measured by state and year. CIT rate is the top statutory corporate income tax rate as a percent ranging from 1.7% to 12%. Sales Wgt is the sales factor weight in the state's corporate income apportionment scheme as a percent ranging from 33% to 100%. PIC Addback, Throwback and Combined Rpt are binary dummy variables equal to 1 if the state has adopted the policy or 0 if the state has not adopted the policy. PIC Addback indicates whether a state has adopted an addback for intangible expenses paid by a corporate taxpayer to a passive investment company located in a state which does not tax corporations (e.g., Nevada) or does not tax income from intangible assets (e.g., Delaware). Throwback indicates whether a state has adopted a throwback rule. A throwback rule requires a corporation's sales assigned under the destination rule to a state that does not tax corporate income to be "thrown back" to the taxing state from which the sales originated and included in the numerator of the corporation's sales factor. Combined Rpt indicates whether a state has adopted combined reporting for purposes of corporate income tax.

The models also include ST Rate, which is a state's sales tax rate as a percent ranging from 0% to 8.25%, and PIT Rate, which is a state's top statutory personal income tax rate as a percent ranging from 0% to 13.3%. ST Rate is included in the model to control for the indirect impact on corporate income tax revenue from the sales tax burden on business. PIT Rate is included in the model to control for the indirect impact of a state's personal income tax rate on corporate income tax revenue via the potential impact of the personal income tax burden on businesses organizing as pass-through entities instead of as C corporations.

The panel dataset used to estimate the regression model is comprised of data from 44 states and spans 18 years from 1997 to 2014 (n=787). States that do not impose any corporate tax and states that impose a corporate gross receipts tax are excluded from the dataset. The timeframe of the panel includes two recessionary periods and includes variation in the use of combined reporting where 6 states adopted combined reporting from 1999 to 2009. Table A4.2 provides descriptive statistics for the variables.

Table A4.2: Descriptive Statistics

Variable	Mean	Standard Deviation
CIT Revenue	908.37	1,476.47
GSP	263,443.10	323,128.70
CIT Rate	7.48	1.67
Sales Wgt	58.34	24.48
PIC Addback	0.31	0.46
Throwback	0.56	0.50
Combined Rpt	0.41	0.49
ST Rate	4.74	1.95
PIT Rate	5.85	2.74

Notes

787 observations.

*Binary variables where 1 equals the presence of the attribute and 0 equals the absence of the attribute. Descriptive statistics relate to the proportion of the observations where the attribute is present.

Table A4.3 reports the statistical estimates for three model specifications. The base model isolates the initial revenue impact of combined reporting but does so without controlling for lagged or delayed impacts of combined reporting over time. The second model specification accounts for the potential that corporate

taxpayers could potentially have a delayed response to a combined reporting requirement which could alter the revenue impact over time. The third model specification examines whether having a PIC addback lessens the revenue impact of combined reporting because the PIC addback logically would capture revenue already that would otherwise be captured with a combined-reporting requirement.

Each model specification includes state and year fixed effects. The models explain roughly 82% of the variation in state corporate income tax revenue across states and across time periods. The policy variables in the models could potentially be endogenous as these policies are not randomly assigned to states but are selected by state policymakers based on many factors that impact corporate tax revenue levels and trends. As well, trends in the corporate tax base or corporate tax revenue may indeed impact decisions by policymakers to adopt the different policies we specify in the models. This endogeneity creates a methodological and statistical problem that may lead to the regression estimators being biased. We do not employ statistical methods to correct for the potential endogeneity bias.

Table A4.3: Estimated Determinants of State Corporate Income Tax Revenue

Variable	Base Model	Lagged Impact of Combined Reporting	Interaction Between Combined Reporting and PIC Addback
GSP	1.506***	1.635***	1.517***
CIT Rate	0.096***	0.109**	0.096**
Sales Wgt	-0.001	-0.0002	-0.001
PIC Addback	0.058	0.036	0.065
Throwback	0.089*	0.145*	0.087*
Combined Rpt	0.079	0.165**	0.094
(Combined Rpt)*(PIC Addback)			-0.025
Combined Rpt 1 Year Lag		-0.063	
Combined Rpt 2 Year Lag		0.002	
Combined Rpt 3 Year Lag		-0.031	
ST Rate	-0.018	-0.011	-0.019
PIT Rate	0.015*	0.009	0.014*
Constant	-12.691	-14.327	-12.813
Observations	787	655	787
Adjusted R-Squared	0.825	0.816	0.826

Notes

CIT Revenue and GSP are logged.

***, **, *: Variable coefficient is statistically significant at 1%, 5%, or 10% level of confidence, respectively.

All models include fixed effects for states and years.

GSP and CIT Rate are statistically significant determinants of corporate income tax revenue. The estimates are intuitive in that corporate income tax revenue is estimated to be increasing in GSP and CIT Rate. The model estimates indicate that a state's economic output and corporate tax rate are the primary drivers of corporate income tax revenue.

Sales Wgt and PIC Addback are consistently intuitive, but they are not statistically significant. The estimators suggest that a higher weight on the sales factor in a state's corporate income apportionment formula decreases revenue from the corporate income tax. Thus, potentially, increases in revenue from sales-heavy firms like retailers do not offset the revenue reductions from, for instance, manufacturing firms that may be heavy in property and payroll (the two other factors in the typical apportionment scheme). The PIC addback estimator is positive, which is also intuitive, suggesting that this addback serves to increase the corporate tax base and, as a result, corporate income tax revenue. Nevertheless, neither estimator is statistically significant or statistically discernible from zero. So, it would be inappropriate to conclude that either factor has an impact on corporate income tax revenue.

Throwback is consistently intuitive and statistically significant. It suggests that corporate income tax revenues are systematically higher in states that have adopted a throwback rule compared to states that have not, holding all other economic and policy factors fixed. The estimated impact of adopting a throwback rule is not only statistically significant but is economically significant as well.

The additional controls for state sales tax and personal income tax (ST Rate and PIT Rate) provide intuitive revenue impact estimates. However, ST Rate fails to be statistically significant in each model specification and the estimators are very small in magnitude. While PIT Rate is statistically significant in two of the model specifications, the estimators are also very small in magnitude.

The impact estimates surrounding combined reporting are somewhat ambiguous. In the base model, the estimator on Combined Rpt is positive, but it fails to be statistically significant. However, when we control for the impact of combined reporting over a period of years, the estimator on Combined Rpt is statistically significant and economically significant. This suggests that adopting combined reporting could potentially lead to an increase in corporate income tax revenue. However, the estimators on the lagged combined reporting variables are not statistically significant and are not consistently positive values. This suggests that corporate income tax revenue may increase initially due to combined reporting, but in the long run this revenue impact will decline to zero.

The interaction of Combined Rpt and PIC Addback generates an estimator that is negative, but not statistically significant.